Think Academy

Jolly Math



Grade 2

Think Academy US ONLINE

Pre-K & Lower Elementary Math Program

Think Academy Pre-K and Lower Elementary Math Program is designed for ages **3–8**, offering a structured, year-round learning path based on North American standards. It builds **seven core abilities**—calculation, logic, spatial sense, measurement and data, creativity, expression, and critical thinking—to form a solid foundation for future STEM success.

The long-term program includes Honors and Challenge tracks tailored to each child’ s math level. **Both follow the same framework** to strengthen **thinking skills** from PreK–G2. The Challenge track **adds competition training** for a smooth transition to upper-elementary math contests.

PreK: The Pre-K course has no level divisions. Before entering Kindergarten, students take placement assessments; combined with classroom performance and learning goals, this determines the most suitable course level.

Honors: Focuses on developing seven core abilities, fostering interest and confidence in math, and building potential for advanced study and future competitions.

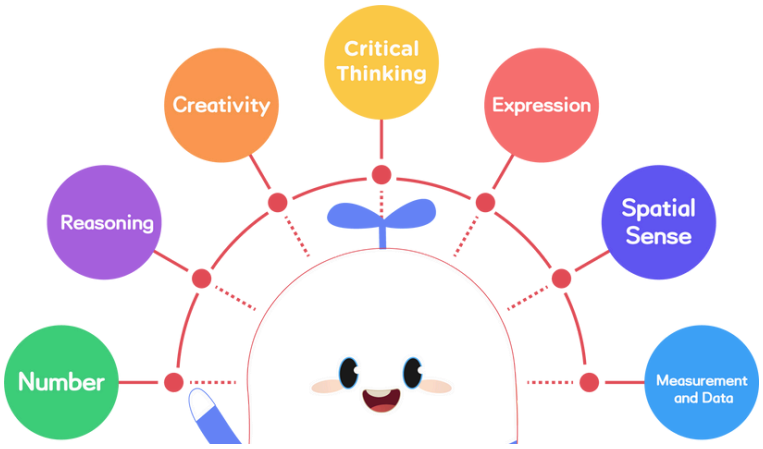
Challenge: Builds on the Honors curriculum with competition-focused enrichment aligned to the Math Kangaroo, encouraging children to explore and achieve in math contests from an early age.

Early childhood learning planning				
Tracks	Pre-K	K	G1	G2
Honors	Pre-K Think Ability	K Honors	G1 Honors	G2 Honors
Challenge		K Challenge	G1 Challenge	G2 Challenge
Competition				G2 Pre-ACE

What Are the Seven Core Abilities?

3 Comprehensive Output Skills – Apply What You Learn

4 Core Math Skills – Spark Interest in Learning



- Ages 3–8 are the key period for developing children's thinking skills
- Through scenario-based learning, we protect curiosity
- Enhance the joy of exploration, and help children build and strengthen their thinking frameworks
- Cultivating active thinking and lifelong learning ability

PreK-G2	G3-G5	G6-G8	G9-G12
Creativity	Complex Problem-Solving Ability Accelerated School Progress Competition Enrichment		
Critical Thinking			
Expression			
Reasoning	Word Problems		
Spatial Sense	Elementary Geometry	Introductory Algebra	Advanced Functions
Measurement and Data	Statistics and Graphs	Plane Geometry	High School Geometry
Number	Calculation and Smart Strategies	Science Courses	AP Science

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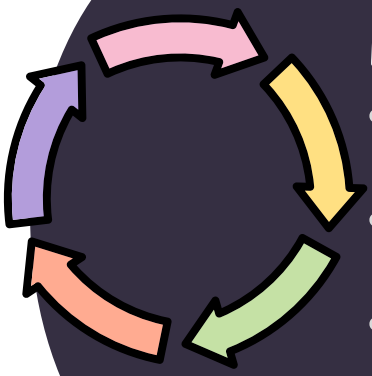
Course Highlights

Clear Structure, Worry-Free for Parents

Personalized Learning Plans with Full Progress Tracking



- **Before Enrollment:** Teachers create **personalized study plans** based on each student’ s goals and ability
- **During Learning:** Teachers give **regular feedback and targeted advice**, helping parents track progress
- **Mid-Term & Final Evaluations**: **Parent meetings** and updated study plans ensure steady improvement



Weekly Learning Cycle to Ensure Steady Progress

- **Pre-Class Preparation: 15-minute preview** to review key concepts and prepare for new lessons
- **Homework: Assigned after each class**, with teacher feedback shared with parents
- **Office Hour: Free live sessions** to review and clarify difficult problems
- **Homework Review Videos:** Each homework question includes a **detailed video explanation** for easy review

Year-Round Learning Support



- **Year-round Parent App service** providing fast responses
- Through the Parent App, parents get **direct contact with teachers** for efficient communication and real-time progress updates
- Instant online homework help for **timely learning support**

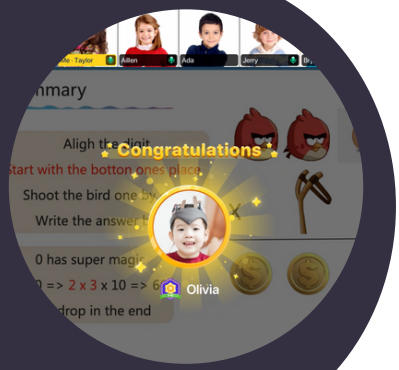
Think Academy US Online

Course Highlights

Happy Learning, Better Results

Thoughtfully Crafted Lessons Inspire a Love for Math

- **Interactive games and scenario-based teaching** make math fun and engaging
- **Gold coin reward system** lets students exchange coins for prizes, motivating them to complete learning tasks actively





Self-Developed Learning App Enhances Every Online Class

- **Think Academy learning app** enhances in-class interaction with hand-raising, polls, and group activities —**keeping students engaged every three minutes**
- Teachers **track progress in real time** for an effective learning experience

A Sense of Achievement Builds Intrinsic Motivation

- Students learn efficiently in class and get **full after-class support** with detailed homework videos and free weekly Office Hours.
- Students **gain higher grades, faster progress**. They are naturally motivated to put more effort in STEM learning and become **confident math learners**



Contents

Basic Math 01

Number and Operations / 2

Geometry / 69

Word Problems / 97

Logical Reasoning / 105

Measurement / 119

Advanced Math 133

Number and Operations / 134

Geometry / 173

Word Problems / 207

Logical Reasoning / 223

Measurement / 245

Crazy Math 259

MK Level 1-2 / 260

Think Cup / 293

Basic Math

Number and Operations

Addition and Subtraction within 100

1 Calculate with column addition or column subtraction.

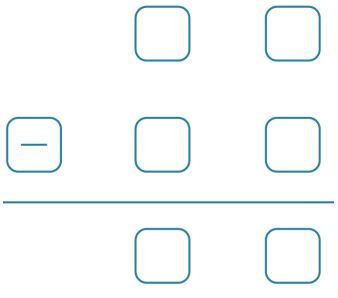
(1) $13 + 17 =$ _____ . $33 - 28 =$ _____ .

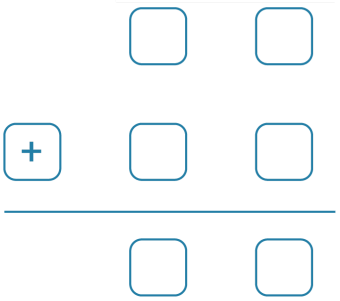
(2) $26 + 34 =$ _____ . $17 - 9 =$ _____ .

(3) $26 + 17 =$ _____ . $33 - 16 =$ _____ .

2 Calculate with column addition or column subtraction.

(1) $68 - 35 =$ _____ . $65 + 33 =$ _____ .





(2) $62 + 36 =$ _____ .

$79 - 52 =$ _____ .

(3) $77 - 64 =$ _____ .

$32 + 37 =$ _____ .

(4) $67 - 12 =$ _____ .

$22 + 61 =$ _____ .

3 Calculate:

(1) $43 - 17 + 56 =$ _____ .

$74 - 32 + 12 =$ _____ .

(2) $56 - 13 + 48 =$ _____ .

$45 - 12 + 56 =$ _____ .

(3) $78 - 23 + 45 =$ _____ .

$85 - 33 + 17 =$ _____ .



4 Calculate with column subtraction.

(1) 31 − 28 = _____ .

25 − 19 = _____ .

(2) 43 − 18 = _____ .

47 − 38 = _____ .

(3) 40 − 19 = _____ .

41 − 18 = _____ .

(4) 22 − 9 = _____ .

40 − 18 = _____ .

(5) 41 − 25 = _____ .

33 − 18 = _____ .

5 Add using column addition:

(1) $39 + 40 =$ _____

(2) $38 + 51 =$ _____

(3) $25 + 62 =$ _____

6 Can you correct the mistakes?

(1)

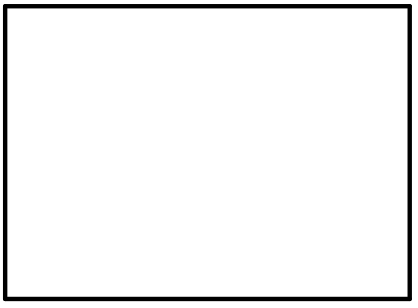
$$\begin{array}{r} 83 - 6 = 23 \\ 8 \quad 3 \\ -\ 6 \\ \hline 2 \quad 3 \end{array}$$



Correction

(2)

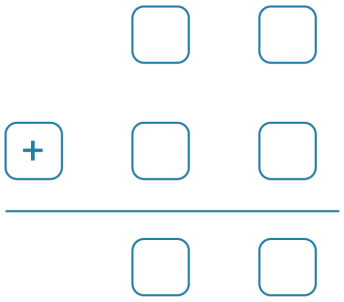
$$\begin{array}{r} 22 + 49 = 61 \\ 2 \quad 2 \\ +\ 4 \quad 9 \\ \hline 6 \quad 1 \end{array}$$



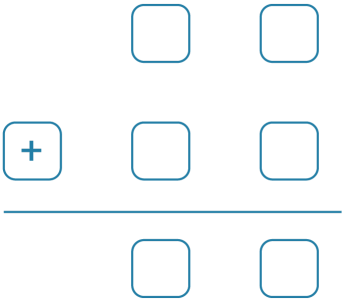
Correction

7 Calculate with column addition.

(1) $11 + 19 =$ _____ .



$27 + 7 =$ _____ .



(2) $19 + 28 =$ _____ .

$25 + 17 =$ _____ .

(3) $8 + 28 =$ _____ .

$28 + 17 =$ _____ .

(4) $18 + 23 =$ _____ .

$27 + 16 =$ _____ .

(5) $32 + 29 =$ _____ .

$27 + 25 =$ _____ .



8 Calculate:

(1) $99 - (76 + 12) =$ _____ .

$99 - (73 + 22) =$ _____ .

(2) $96 - (34 + 55) =$ _____ .

$89 - (56 + 22) =$ _____ .

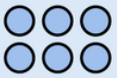
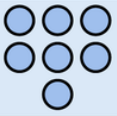
(3) $78 - (43 + 9) =$ _____ .

$84 - (45 + 11) =$ _____ .

9 Add using column addition:

Tens	Ones
	
	

_____

Tens	Ones
	
	

_____

10 Calculate with column addition.

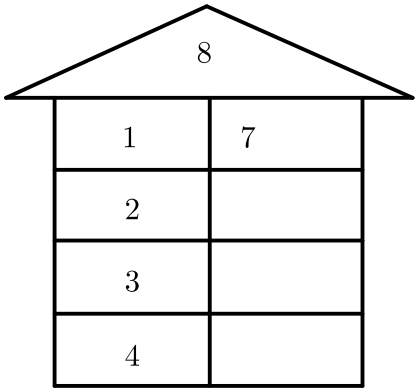
(1) 13 + 15 = _____ .

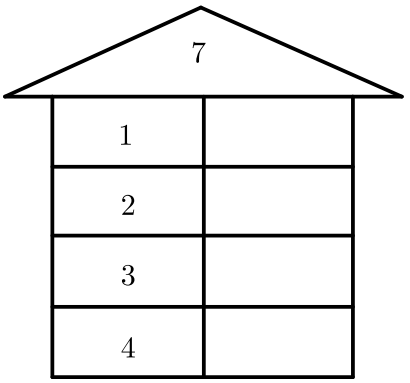
(2) 11 + 18 = _____ .

(3) 16 + 21 = _____ .

(4) 23 + 25 = _____ .

11 Find the pattern, and fill correct numbers in the house.





12 Calculate with column addition or column subtraction.

(1) $58 + 29 =$ _____ . $56 - 49 =$ _____ .

(2) $57 - 38 =$ _____ . $86 - 48 =$ _____ .

(3) $57 + 38 =$ _____ . $86 + 48 =$ _____ .

(4) $29 + 78 =$ _____ . $76 - 39 =$ _____ .

13 Calculate:

(1) $34 + 17 + 18 =$ _____ .

$56 + 23 + 9 =$ _____ .

(2) $32 + 24 + 22 =$ _____ .

$45 + 12 + 25 =$ _____ .

(3) $11 + 32 + 18 =$ _____ .

$65 + 12 + 15 =$ _____ .



14 Calculate:

(1) $89 - 26 - 15 =$ _____ .

$75 - 23 - 12 =$ _____ .

(2) $96 - 25 - 15 =$ _____ .

$78 - 13 - 10 =$ _____ .

(3) $79 - 47 - 9 =$ _____ .

$92 - 23 - 10 =$ _____ .

15 Calculate with column subtraction.

(1) 87 – 38 = _____ .

93 – 47 = _____ .

(2) 76 – 49 = _____ .

58 – 39 = _____ .

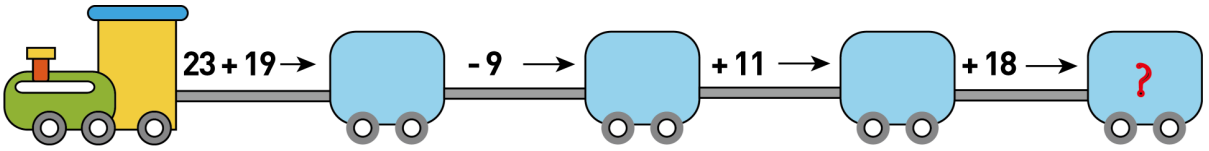
(3) 97 – 69 = _____ .

63 – 49 = _____ .

(4) 80 – 37 = _____ .

52 – 18 = _____ .

16 What is the number in the last carriage?



17 Calculate with column addition.

(1) 13 + 28 = _____ .

29 + 12 = _____ .

(2) 19 + 28 = _____ .

37 + 17 = _____ .

(3) 34 + 17 = _____ .

36 + 19 = _____ .

(4) 26 + 28 = _____ .

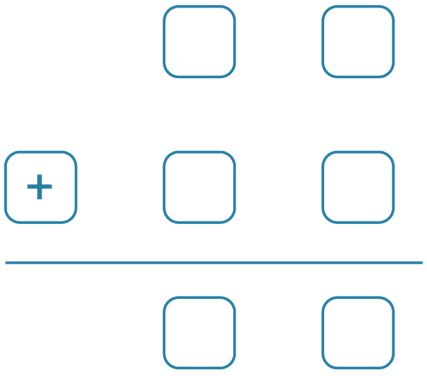
34 + 18 = _____ .

(5) 15 + 19 = _____ .

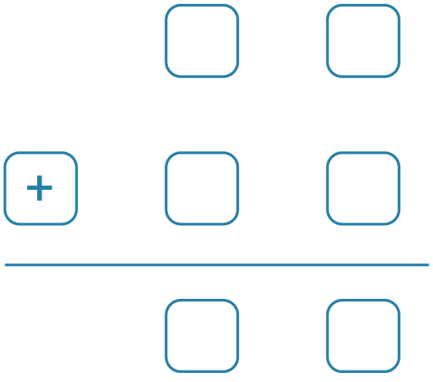
29 + 16 = _____ .

18 Calculate with column addition.

10 + 30 = _____ .



40 + 15 = _____ .



$23 + 11 =$ _____ .

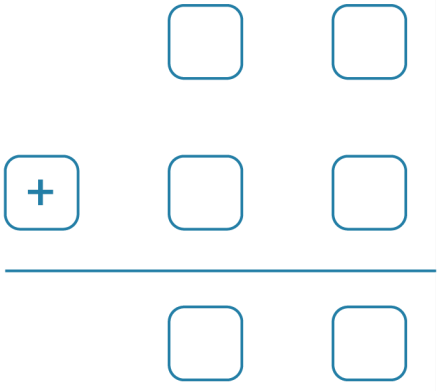
$18 + 11 =$ _____ .

$12 + 33 =$ _____ .

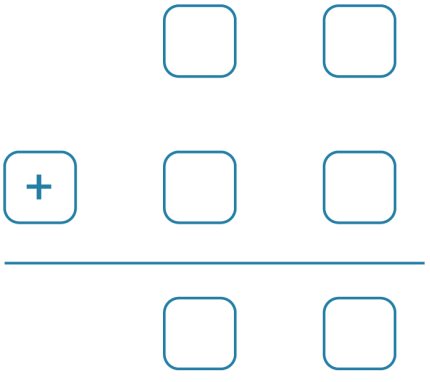
$10 + 19 =$ _____ .

19 Calculate with column addition.

(1) $27 + 52 =$ _____ .



(2) $73 + 11 =$ _____ .



(3) 88 + 10 = _____ .

(4) 43 + 16 = _____ .

(5) 72 + 14 = _____ .

(6) 52 + 17 = _____ .

(7) 87 + 12 = _____ .

(8) 27 + 31 = _____ .

20 Observe the pattern and fill the blanks.

9	8	12	15
(3) + (6)	(4) + ( )	(4) + ( )	(2) + ( )

21 Calculate with column subtraction.

(1) 72 – 21 = _____ .

98 – 48 = _____ .

(2) 62 – 50 = _____ .

78 – 65 = _____ .

(3) 98 − 65 = _____ .

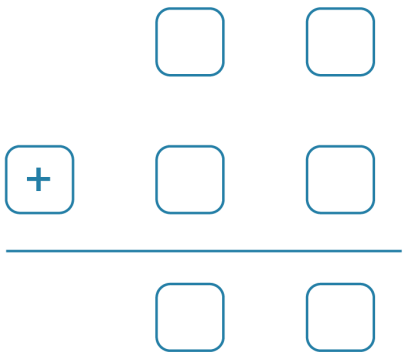
76 − 43 = _____ .

(4) 64 − 32 = _____ .

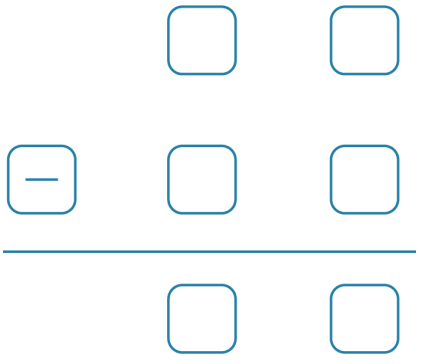
75 − 54 = _____ .

22 Calculate with column addition or column subtraction.

(1) 38 + 11 = _____ .



39 − 25 = _____ .





(2) $25 + 14 =$ _____ .

$48 - 15 =$ _____ .

(3) $39 - 17 =$ _____ .

$36 + 12 =$ _____ .

(4) $27 + 12 =$ _____ .

$46 - 15 =$ _____ .

(5) 33 – 10 = _____ .

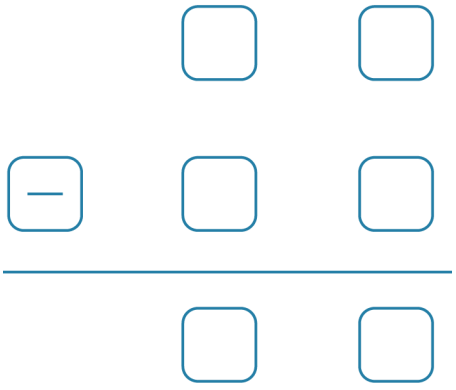
39 + 10 = _____ .

(6) 28 – 13 = _____ .

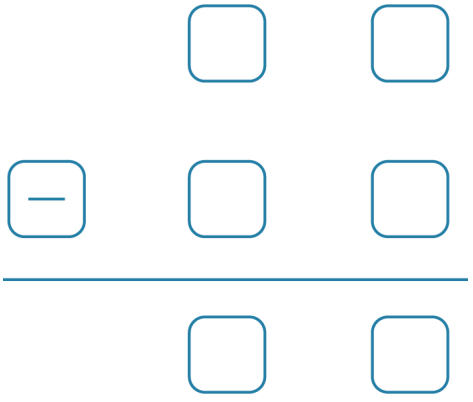
34 + 13 = _____ .

23 Calculate with column subtraction.

(1) 87 – 72 = _____ .



64 – 42 = _____ .



(2) $76 - 35 =$ _____ .

$87 - 47 =$ _____ .

(3) $98 - 74 =$ _____ .

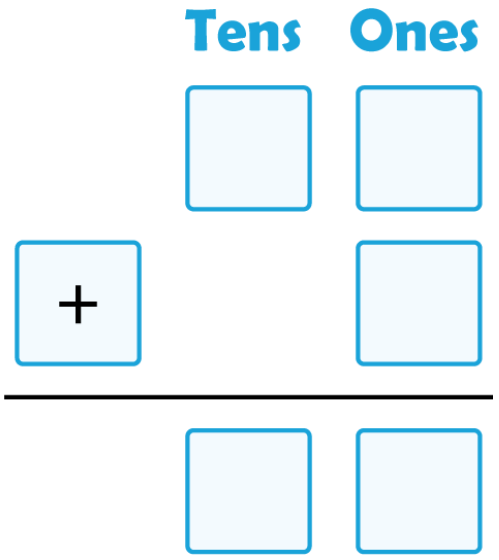
$87 - 56 =$ _____ .

(4) $87 - 54 =$ _____ .

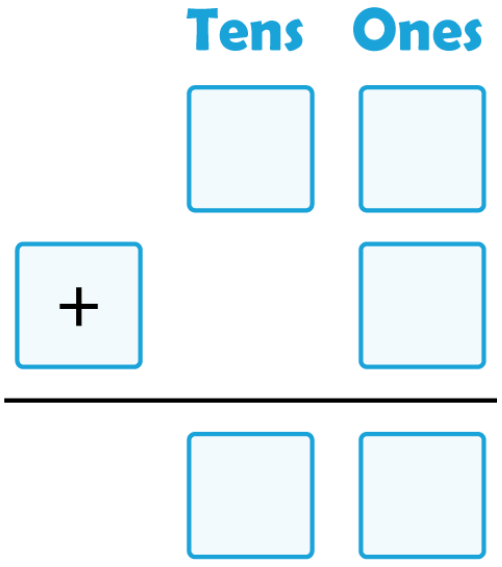
$88 - 66 =$ _____ .

24 Add using column addition:

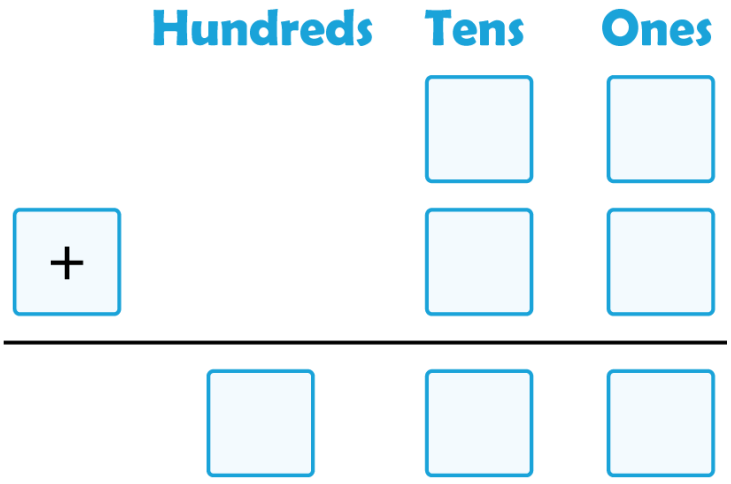
(1) 25 + 6 = _____



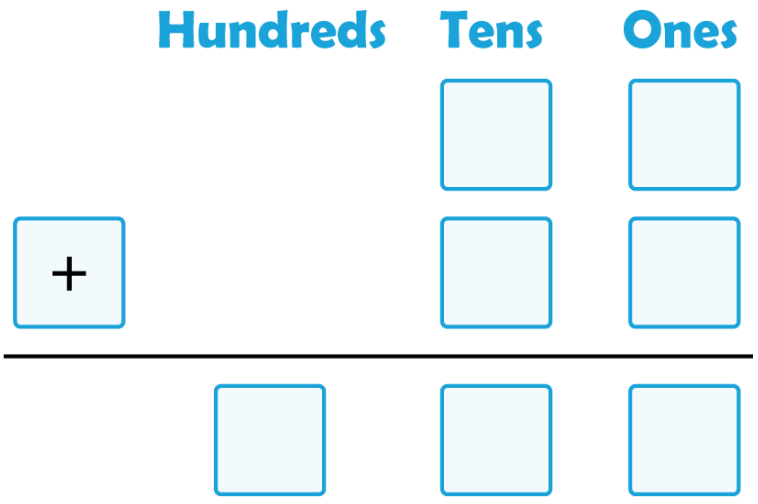
(2) 22 + 9 = _____



(3) 86 + 23 = _____



(4) 65 + 56 = _____



25 Calculate with column addition.

(1) 73 + 15 = _____ .

(2) 63 + 13 = _____ .

(3) 81 + 15 = _____ .

(4) 54 + 13 = _____ .

(5) 62 + 25 = _____ .

(6) 71 + 15 = _____ .

(7) $65 + 12 =$ _____ .

(8) $33 + 35 =$ _____ .

26 Calculate with column subtraction.

$24 - 13 =$ _____

$42 - 11 =$ _____

27 Calculate with column addition.

(1) $56 + 27 =$ _____ .

$26 + 57 =$ _____ .

(2) $48 + 28 =$ _____ .

$47 + 27 =$ _____ .

(3) $78 + 22 =$ _____ .

$36 + 58 =$ _____ .

(4) $67 + 24 =$ _____ .

$39 + 52 =$ _____ .



28 Calculate:

(1) $78 - 64 =$ _____ .

$54 + 32 =$ _____ .

(2) $66 + 13 =$ _____ .

$93 - 12 =$ _____ .

(3) $23 + 46 =$ _____ .

$98 - 67 =$ _____ .

(4) $57 - 43 =$ _____ .

$33 + 63 =$ _____ .

29 Mia made a mistake when she did column addition. Where is the mistake? Help her correct it!

$39 + 62 = ?$

$$\begin{array}{r} 3\quad 9 \\ +\ 6\quad 2 \\ \hline 9\quad 1 \end{array}$$

Correction:



30 Calculate:

(1) $34 - 17 - 8 =$ _____ .

$56 - 23 - 9 =$ _____ .

(2) $54 - 12 - 14 =$ _____ .

$87 - 23 - 16 =$ _____ .

(3) $95 - 17 - 23 =$ _____ .

$58 - 13 - 21 =$ _____ .

31 Calculate:

(1) $34 + 17 - 8 =$ _____ .

$56 - 23 + 9 =$ _____ .

(2) $35 + 45 - 23 =$ _____ .

$12 - 8 + 57 =$ _____ .

(3) $64 + 34 - 16 =$ _____ .

$65 - 32 + 19 =$ _____ .

32 Calculate with column subtraction.

(1) $47 - 13 =$ _____ .

$45 - 10 =$ _____ .

(2) $31 - 11 =$ _____ .

$37 - 12 =$ _____ .

(3) $48 - 17 =$ _____ .

$43 - 22 =$ _____ .

(4) 38 − 17 = _____ .

21 − 11 = _____ .

(5) 46 − 15 = _____ .

29 − 16 = _____ .

33 Add using column addition:

(1) 28 + 70 = _____

(2) 46 + 61 = _____

(3) 36 + 72 = _____



34 Calculate with column addition or column subtraction.

(1) $34 + 16 =$ _____ . $13 + 28 =$ _____ .

(2) $17 + 17 =$ _____ . $33 - 19 =$ _____ .

(3) $19 + 14 =$ _____ . $21 - 18 =$ _____ .

(4) $27 + 14 =$ _____ . $46 - 28 =$ _____ .

(5) $17 + 25 =$ _____ . $42 - 28 =$ _____ .

35 Calculate:

(1)
$$\begin{array}{r} 72 \\ +\ 13 \\ \hline \end{array}$$

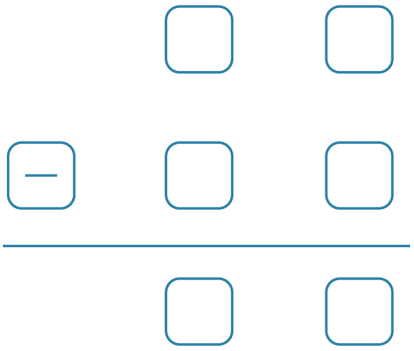
(2)
$$\begin{array}{r} 32 \\ +\ 14 \\ \hline \end{array}$$

(3)
$$\begin{array}{r} 44 \\ +\ 6 \\ \hline \end{array}$$

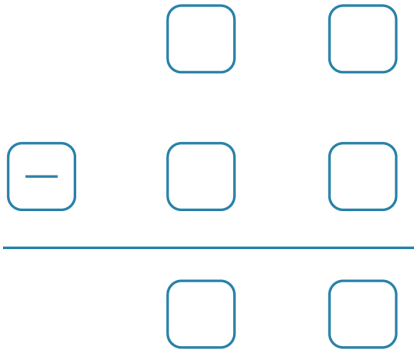
(4)
$$\begin{array}{r} 38 \\ +\ 29 \\ \hline \end{array}$$

36 Calculate with column subtraction.

(1) 43 − 24 = _____ .



32 − 18 = _____ .



(2) 26 − 17 = _____ .

24 − 19 = _____ .

(3) 47 − 18 = _____ .

31 − 18 = _____ .

(4) $21 - 16 =$ _____ .

$42 - 19 =$ _____ .

(5) $31 - 13 =$ _____ .

$23 - 9 =$ _____ .



37 Calculate:

(1) $23 + 50 + 14 =$ _____ .

$32 + 65 + 3 =$ _____ .

(2) $45 + 2 + 15 =$ _____ .

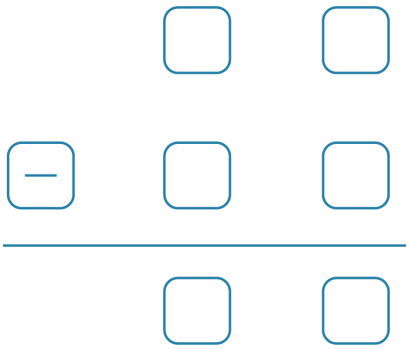
$35 + 36 + 8 =$ _____ .

(3) $73 + 5 + 14 =$ _____ .

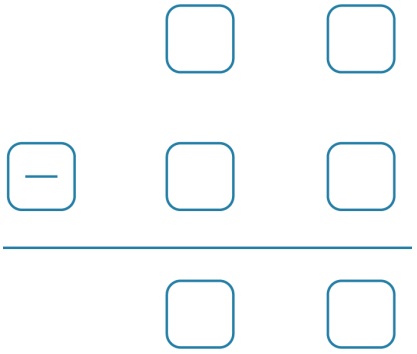
$25 + 43 + 32 =$ _____ .

38 Calculate with column subtraction.

(1) 48 − 32 = _____ .



49 − 21 = _____ .



(2) 39 − 12 = _____ .

34 − 11 = _____ .

(3) 48 − 32 = _____ .

49 − 27 = _____ .

(4) 46 – 21 = _____ .

29 – 20 = _____ .

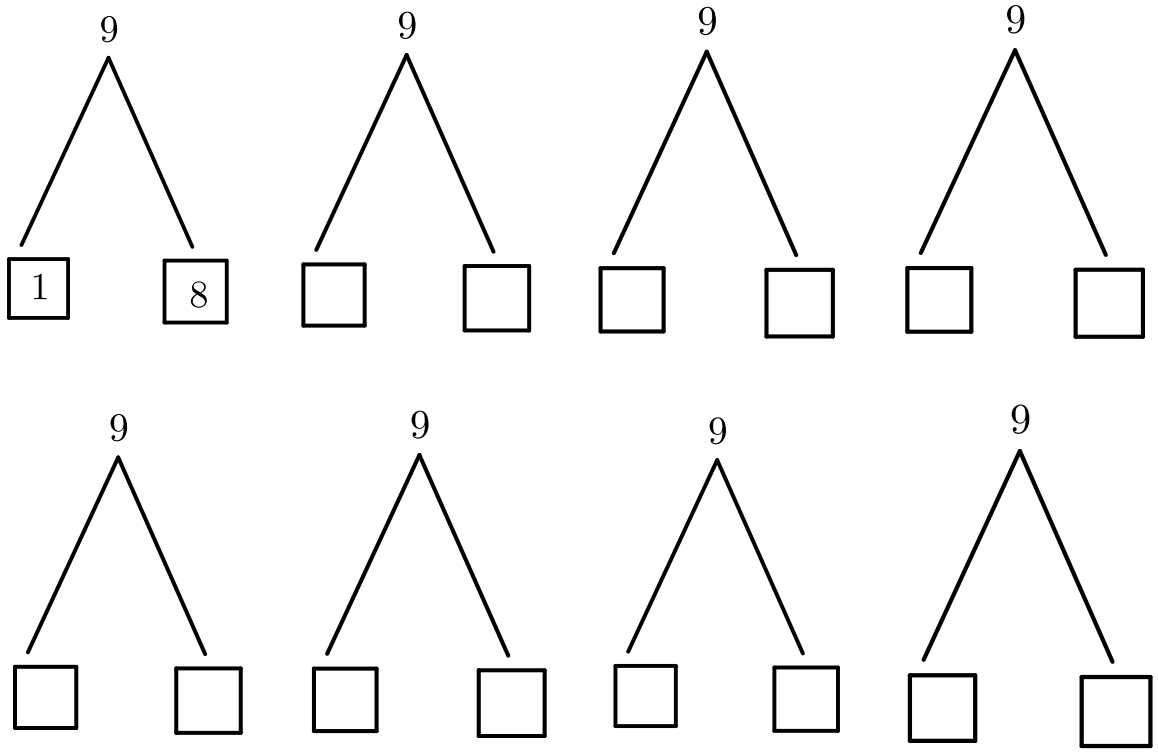
(5) 33 – 10 = _____ .

45 – 24 = _____ .

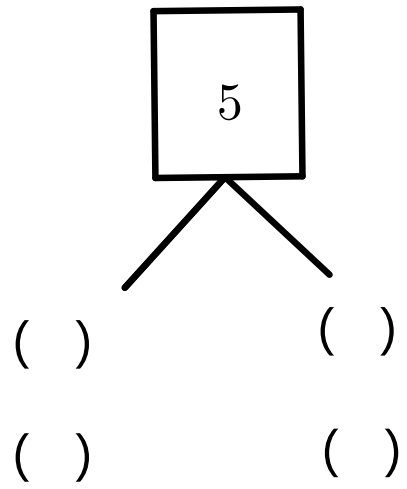
(6) 33 – 11 = _____ .

42 – 12 = _____ .

39 Fill numbers in the blanks.



40 How many different ways can you divide 5 apples into 2 groups? (Each group has at least 1 apple.)



41 Calculate with column addition or column subtraction.

(1) $98 + 14 =$ _____ .

$67 + 49 =$ _____ .

(2) $76 + 24 =$ _____ .

$67 - 49 =$ _____ .

(3) $67 - 39 =$ _____ .

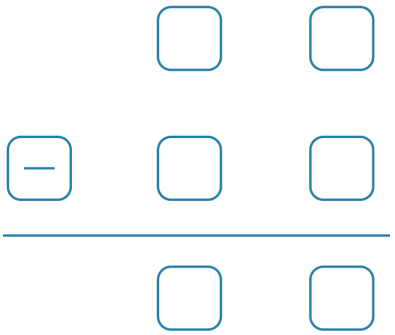
$76 - 49 =$ _____ .

(4) $58 - 29 =$ _____ .

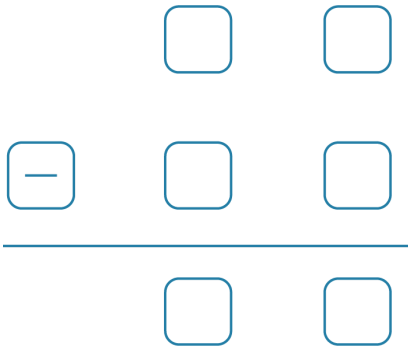
$76 + 49 =$ _____ .

42 Calculate with column subtraction.

(1) 66 − 9 = _____ .



76 − 18 = _____ .



(2) 77 − 69 = _____ .

83 − 38 = _____ .

(3) 56 − 29 = _____ .

65 − 56 = _____ .

(4) 78 − 59 = _____ .

61 − 16 = _____ .

43 Calculate with column addition.

(1) $32 + 14 =$ _____ .

(2) $33 + 15 =$ _____ .

(3) $34 + 12 =$ _____ .

(4) $23 + 22 =$ _____ .

(5) $10 + 33 =$ _____ .

(6) $11 + 15 =$ _____ .

44 Calculate:

(1)
$$\begin{array}{r} 36 \\ +\ \ 8 \\ \hline \end{array}$$

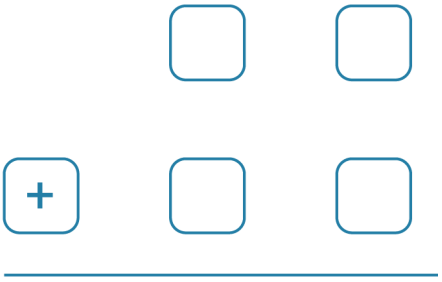
(2)
$$\begin{array}{r} 35 \\ +\ 35 \\ \hline \end{array}$$

(3)
$$\begin{array}{r} 27 \\ +\ \ 8 \\ \hline \end{array}$$

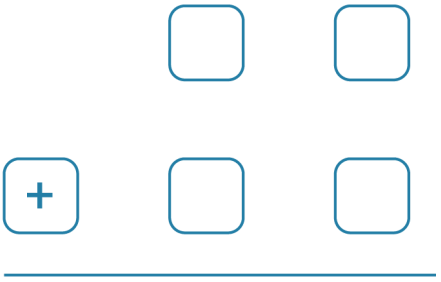
(4)
$$\begin{array}{r} 66 \\ +\ 27 \\ \hline \end{array}$$

45 Calculate with column addition.

(1) 88 + 28 = _____ .



33 + 57 = _____ .



(2) 78 + 39 = _____ .

58 + 79 = _____ .

(3) 15 + 56 = _____ .

11 + 79 = _____ .

(4) 29 + 59 = _____ .

49 + 56 = _____ .

46 Calculate:

(1) $78 - (33 + 24) =$ _____ . $57 - (16 + 32) =$ _____ .

(2) $63 - (13 + 9) =$ _____ . $84 - (45 + 12) =$ _____ .

(3) $94 - (45 + 23) =$ _____ . $84 - (36 + 16) =$ _____ .



47 Calculate with column addition or column subtraction.

(1) $33 + 12 =$ _____ .

$37 - 15 =$ _____ .

(2) $48 - 13 =$ _____ .

$24 + 15 =$ _____ .

(3) $47 - 13 =$ _____ .

$12 + 8 =$ _____ .

(4) 26 + 13 = _____ .

44 − 21 = _____ .

(5) 47 − 16 = _____ .

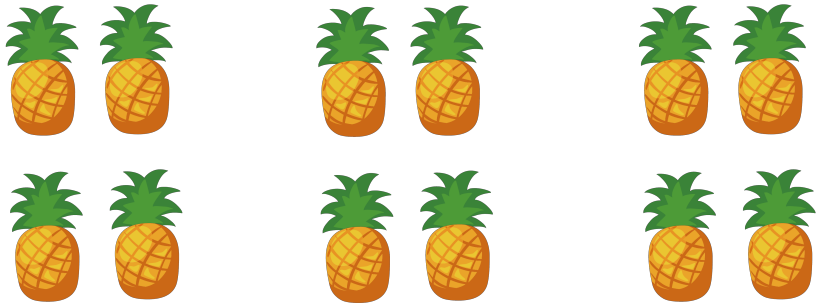
23 + 23 = _____ .

(6) 11 + 28 = _____ .

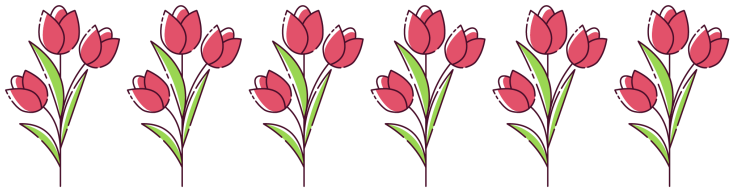
34 − 11 = _____ .

Multiplication

1 There are _____ × _____ = _____ pineapples.



2 There are _____ × _____ = _____ flowers.



3 Write numbers on the petals.





4 Calculate:

5 × 8 =

7 × 6 =

8 × 9 =

5 × 9 =

8 × 8 =

5 Observing the picture below, write the multiplication equation.



_____ × _____ = _____

6 Calculate:

(1) $6 \times 6 =$ _____ . $2 \times 2 =$ _____ .

(2) $4 \times 7 =$ _____ . $7 \times 2 =$ _____ .

(3) $4 \times 4 =$ _____ . $6 \times 5 =$ _____ .

(4) $9 \times 6 =$ _____ . $4 \times 9 =$ _____ .

7



There are _____ × _____ = _____ flowers in the picture.

8



There are _____ × _____ = _____ apples.

9 Calculate:

(1) $3 \times 8 =$ _____ .

$7 \times 4 =$ _____ .

(2) $2 \times 9 =$ _____ .

$3 \times 5 =$ _____ .

(3) $8 \times 8 =$ _____ .

$5 \times 6 =$ _____ .

(4) $7 \times 2 =$ _____ .

$4 \times 4 =$ _____ .

10 Calculate:

(1) $7 \times 8 =$ _____ .

(2) $2 \times 5 =$ _____ .

(3) $7 \times 5 =$ _____ .

(4) $2 \times 8 =$ _____ .

(5) $8 \times 5 =$ _____ .

11 Calculate:

(1) $8 \times 8 =$ _____ .

(2) $7 \times 9 =$ _____ .

(3) $9 \times 3 =$ _____ .

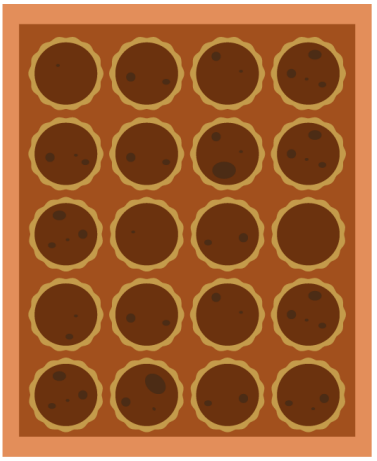
(4) $7 \times 7 =$ _____ .

(5) $6 \times 7 =$ _____ .

12 There are _____ × _____ = _____ swans.



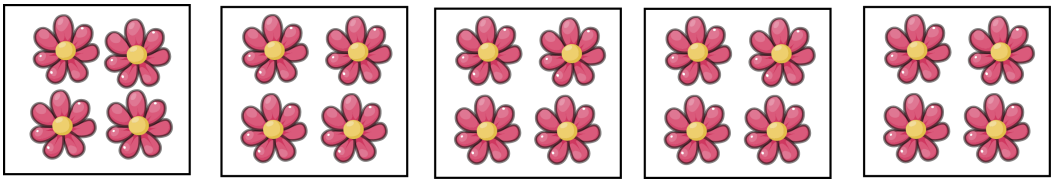
13 There are _____ × _____ = _____ pieces of chocolate.



14 Fill in the blanks.

(1) 

Number of apples: _____ × _____ = _____ .

(2) 

Number of flowers: _____ × _____ = _____ .



15 Calculate:

(1) $4 \times 6 =$ _____ .

$4 \times 2 =$ _____ .

(2) $4 \times 9 =$ _____ .

$6 \times 2 =$ _____ .

(3) $2 \times 5 =$ _____ .

$5 \times 8 =$ _____ .

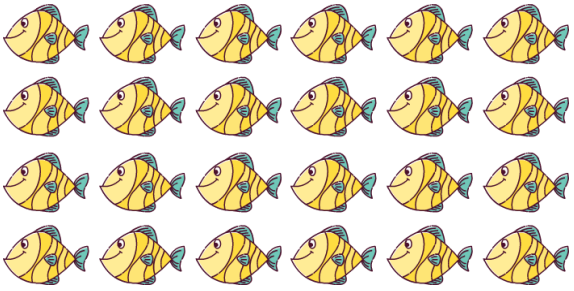
(4) $7 \times 8 =$ _____ .

$4 \times 7 =$ _____ .

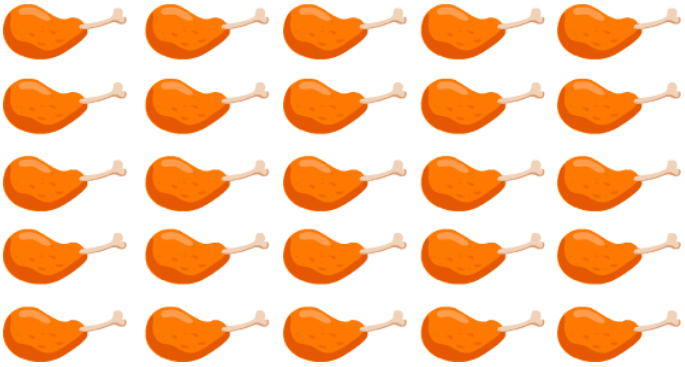
(5) $6 \times 8 =$ _____ .

$9 \times 9 =$ _____ .

16 Observing the pictures below, write multiplication equations.

(1) 

_____ × _____ = _____

(2) 

_____ × _____ = _____

17 

There are _____ × _____ = _____ vegetables.

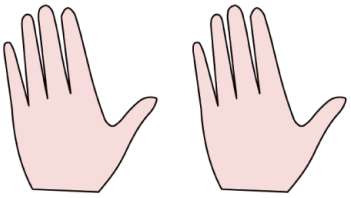
18 There are _____ × _____ = _____ apples.



19 Calculate :

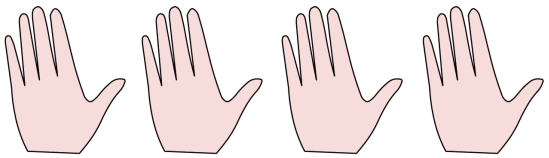
$3 \times 2 =$	$4 \times 2 =$	$3 \times 4 =$	$2 \times 4 =$
$1 \times 4 =$	$3 \times 3 =$	$2 \times 3 =$	$4 \times 4 =$

20



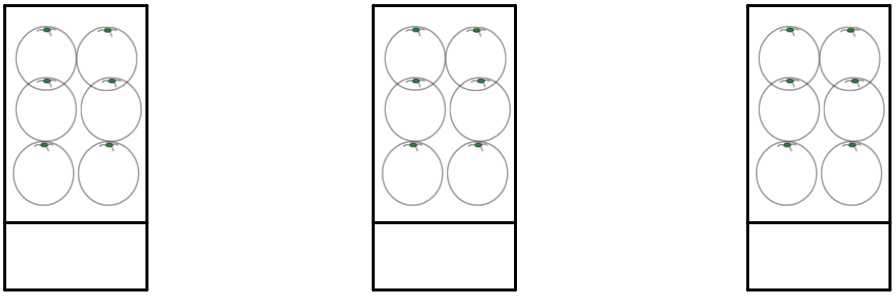
There are 5 × 2 fingers.

(1)



There are _____ × _____ fingers.

(2)



There are _____ × _____ circles.

21 Observing the picture below, write the multiplication equation:



_____ × _____ = _____

22



There are _____ × _____ = _____ leaves.

23 These apples cost _____ × _____ = _____ dollars.



2 dollars 2 dollars 2 dollars 2 dollars 2 dollars

24 Calculate:

(1) $4 \times 8 =$ _____ . $4 \times 3 =$ _____ .

(2) $2 \times 8 =$ _____ . $2 \times 3 =$ _____ .

(3) $9 \times 8 =$ _____ . $6 \times 3 =$ _____ .

(4) $6 \times 8 =$ _____ . $3 \times 3 =$ _____ .

(5) $2 \times 7 =$ _____ . $5 \times 3 =$ _____ .

25 Calculate:

(1) $8 \times 9 =$ _____ .

$5 \times 8 =$ _____ .

(2) $3 \times 6 =$ _____ .

$2 \times 4 =$ _____ .

(3) $4 \times 6 =$ _____ .

$5 \times 5 =$ _____ .

(4) $8 \times 6 =$ _____ .

$3 \times 2 =$ _____ .

26 Calculate:

(1) $4 \times 7 =$ _____ .

$5 \times 9 =$ _____ .

(2) $2 \times 7 =$ _____ .

$3 \times 8 =$ _____ .

(3) $6 \times 7 =$ _____ .

$7 \times 9 =$ _____ .

(4) $6 \times 9 =$ _____ .

$3 \times 9 =$ _____ .

(5) $7 \times 7 =$ _____ .

$8 \times 9 =$ _____ .

NOTE



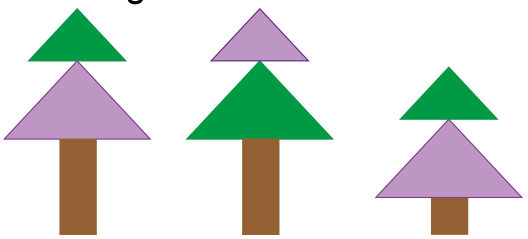
NOTE



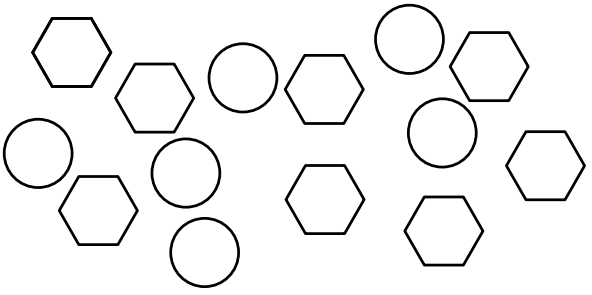
Geometry

Plane Shapes

1 According to the description, circle the correct tree.
a) The rectangle is under the other shapes
b) The pink triangle is on the top of the green triangle.



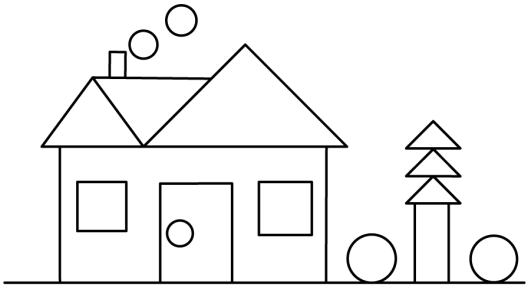
2 How many circles are there in the following figures?



3 How many circles are there? _____



4 Count the number of shapes in the picture below and fill in the blanks.

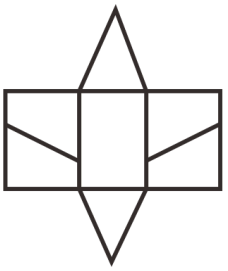


Shapes	▭	□	△	○
Numbers	_____	_____	_____	_____

5 There are _____ squares below.

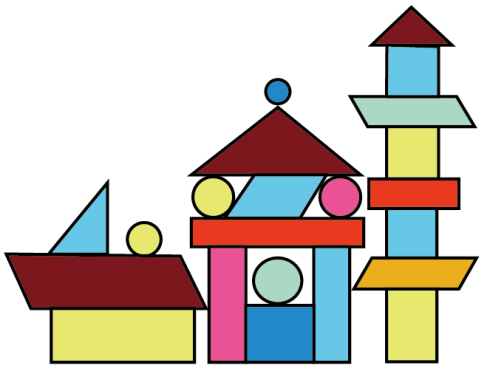


6 Count the numbers of each plane shape in the following graph and fill in the chart.



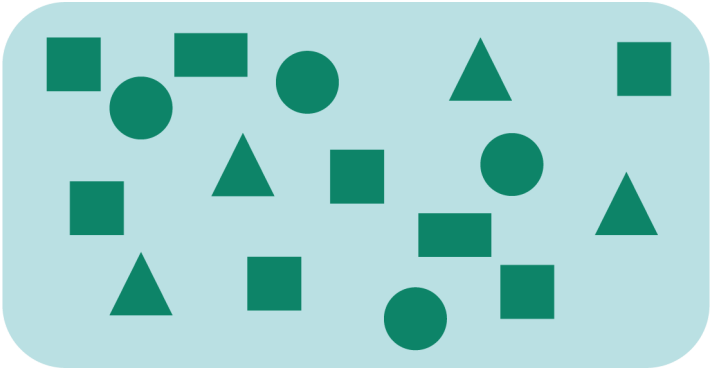
Rectangle	Triangle

7 Count the number of each plane shape in the figure below.



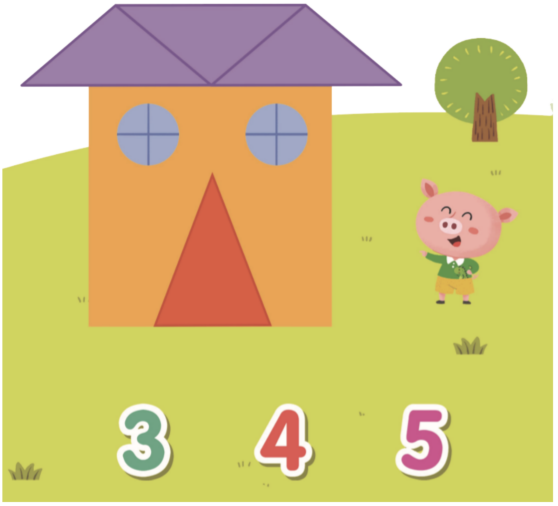
□	( )
▭	( )
△	( )
▱	( )
○	( )

8 Count the number of each shape.



●	▲	■	▬
_____	_____	_____	_____

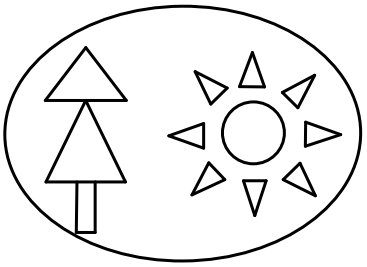
9 Count the number of the triangles in this house and circle the answer.



10 How many triangle(s) is/are there?



11 Count the number of triangles in the picture.



A. 8 B. 9 C. 10 D. 11 E. 12

12 Star's room is really messy. Help her tidy her room by matching each of her things in boxes with the same shape.

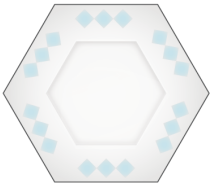
1. 

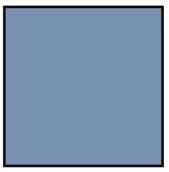
2. 

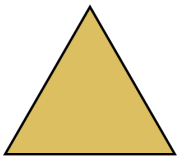
3. 

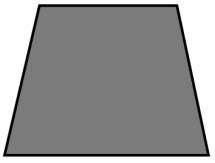
4. 

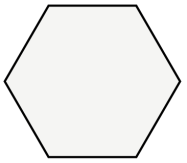
5. 

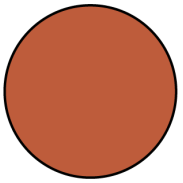
6. 

A. 

B. 

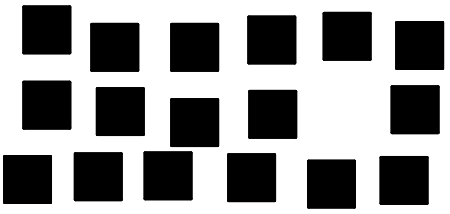
C. 

D. 

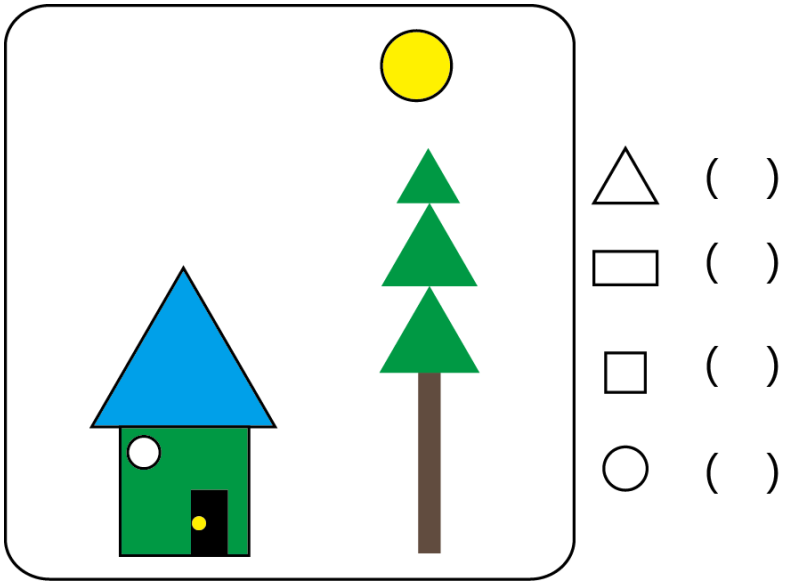
E. 

F. 

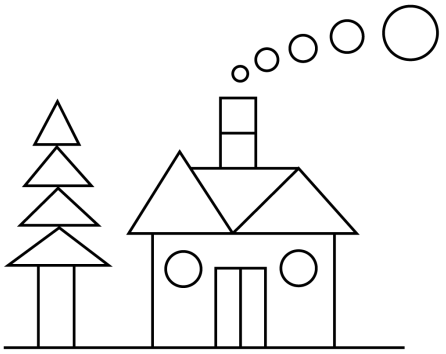
13 How many squares are there?



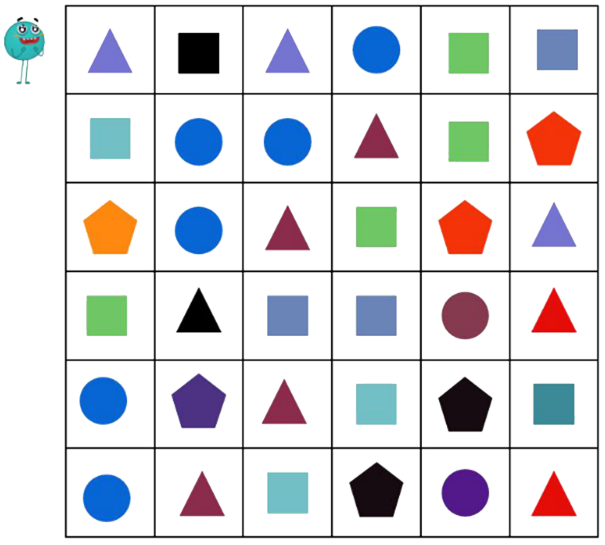
14 Count the number of each plane shape and fill in the blanks.



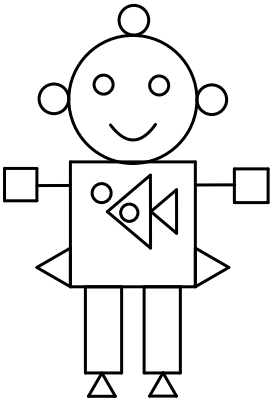
15 There are _____ squares, _____ rectangles, _____ triangles, and _____ circles in the following graph.



16 The elf follows the rule of "triangle-square-pentagon-circle" and find the way out of the maze. It can only walk horizontally or vertically.



17 Count the number of shapes in the robot below and fill in the blanks.

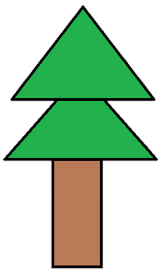


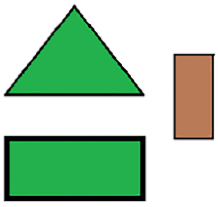
Shapes	▭	□	○	△
Numbers	_____	_____	_____	_____

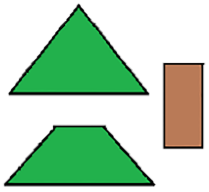
18 Look at The Big Dipper in the sky! How many line segments are there?



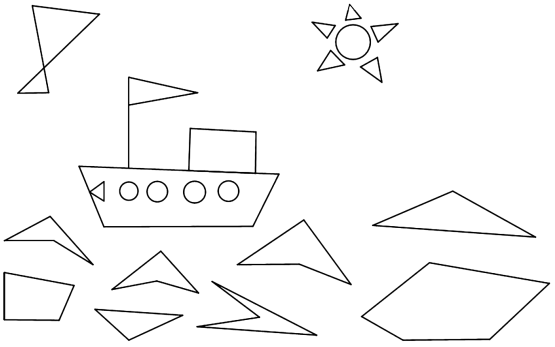
19 Which group of shapes can form this tree?



A. 

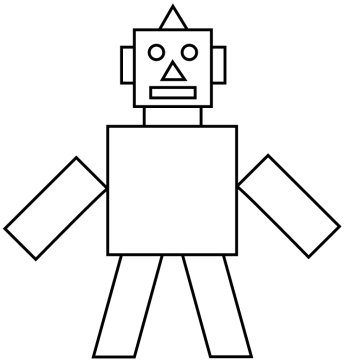
B. 

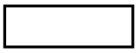
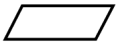
20 Count the number of triangles.



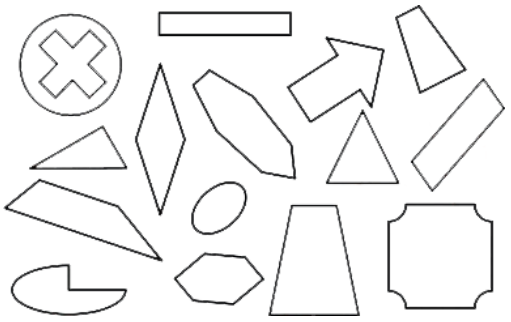
A. 11 B. 12 C. 13 D. 14 E. 15

21 Count the number of each plane shape that form the robot below?



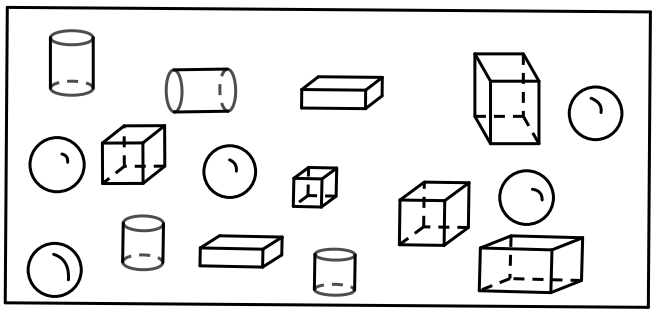
	( )
	( )
	( )
	( )
	( )

22 How many triangles are there in the following figures?



Solid Figures

1 Count and fill in the blanks. The cube is also one kind of cuboids.



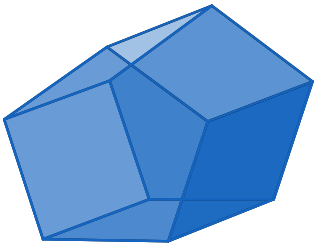
There are _____ cuboids.

There are _____ cubes.

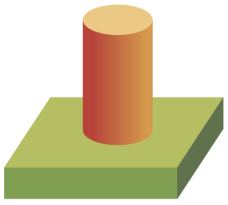
There are _____ cylinders.

There are _____ spheres.

2 How many faces does the solid figure have?



3 Ashley wants to stack models with solid shapes. Which of the following models is the correct way to stack?

A. 

B. 

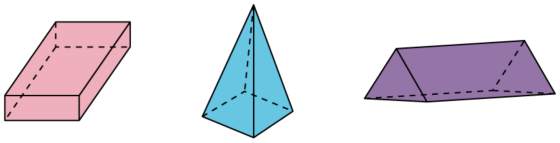
C. 

4 Fill the blanks.

(1) A cube has _____ faces, _____ vertices, _____ edges, and each edge has the _____ (same\different) length.

(2) A cuboid has _____ vertices, _____ edges and _____ faces, and each face has _____ opposite face.

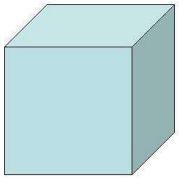
5 How many faces does each of the following solid shapes have?



( ) ( ) ( )

A. 5, 5, 5 B. 6, 5, 5 C. 6, 4, 5 D. 5, 5, 5

6 How many faces and edges does each of the following figures have?



_____ faces, _____ edges.

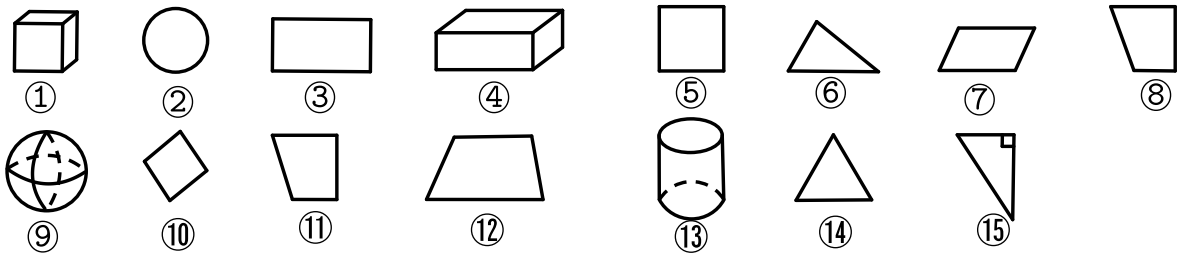


_____ faces, _____ edges.



_____ faces, _____ edges.

7 Observe the following figures and fill the blanks.

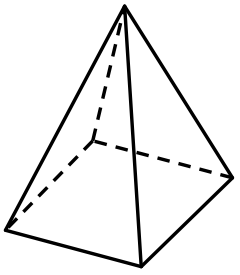


1.solid figures _____

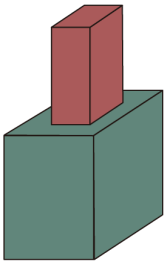
2.plane figures _____

3.triangles _____

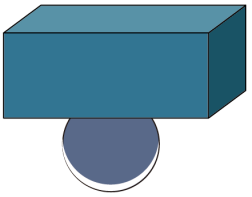
8 There are _____ faces in the figure below.



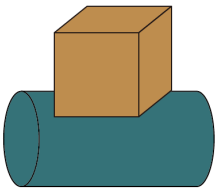
9 Ruth wants to stack models with solid shapes. Which of the following models is the correct way to stack?



①



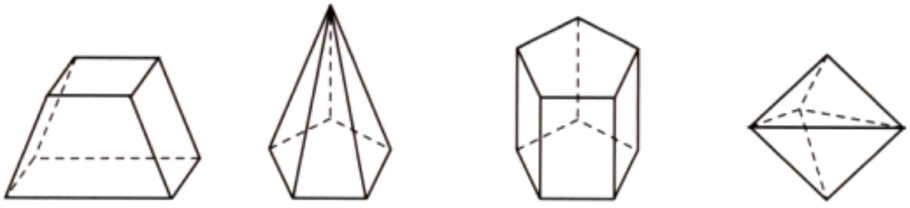
②



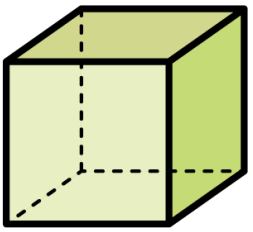
③

A. ②　　B. ①　　C. ③

10 How many vertices, faces, and edges does each of the following figures have, respectively?



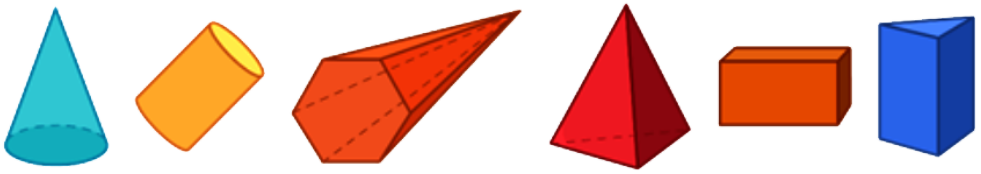
11 Fill the blanks.



(1) The six faces of a cube are _____ (the same/different).

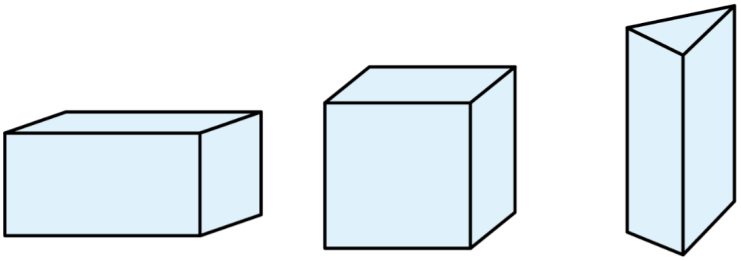
(2) The 12 edges of a cube has _____ (the same/different) lengths.

12 How many faces does each of the following figures have?



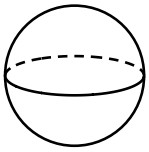
1 2 3 4 5 6

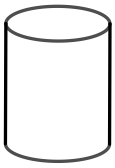
13 How many faces does each of the following figures have, respectively?

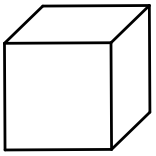


( ) ( ) ( )

14 Which of the following shapes has the most faces?

A. 

B. 

C. 

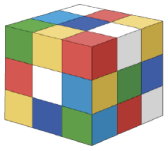
15 Which solid shape below can go through both the round hole and the triangular hole?





16 Match the objects to the correct solid shapes.

1. 

2. 

3. 

4. 

5. 

6. 

A. 

B. 

C. 

D. 

E. 

F. 

17 Find the total number of edges of a cube and a cuboid.

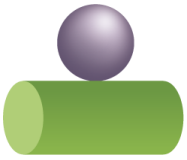
18 Read the following sentences. Draw "√" after the correct ones and draw "×" after the wrong ones.

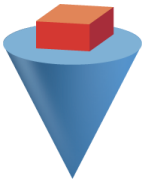
1. Both cuboid and cube have 8 faces, 12 edges, and 6 vertices.

2. The edges of a cuboid must be longer than those of a cube.

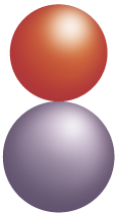
3. A cylinder has two faces.

19 Justin wants to stack models with solid shapes. Which of the following models is the correct way to stack?

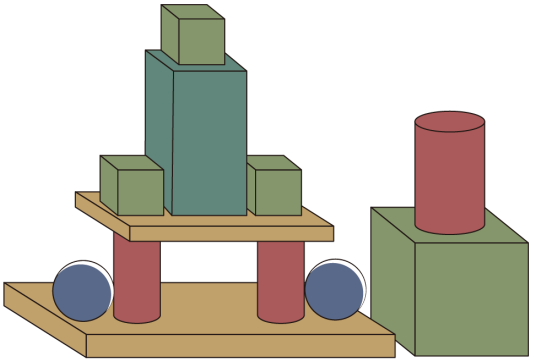
A. 

B. 

C. 

D. 

20 Count the number of solid shapes and fill in the table. The cube is also one kind of cuboids.



Cuboid	Cube	Cylinder	Sphere
_____	_____	_____	_____

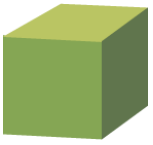
21 Match the objects to the correct solid shapes.

1. 

2. 

3. 

4. 

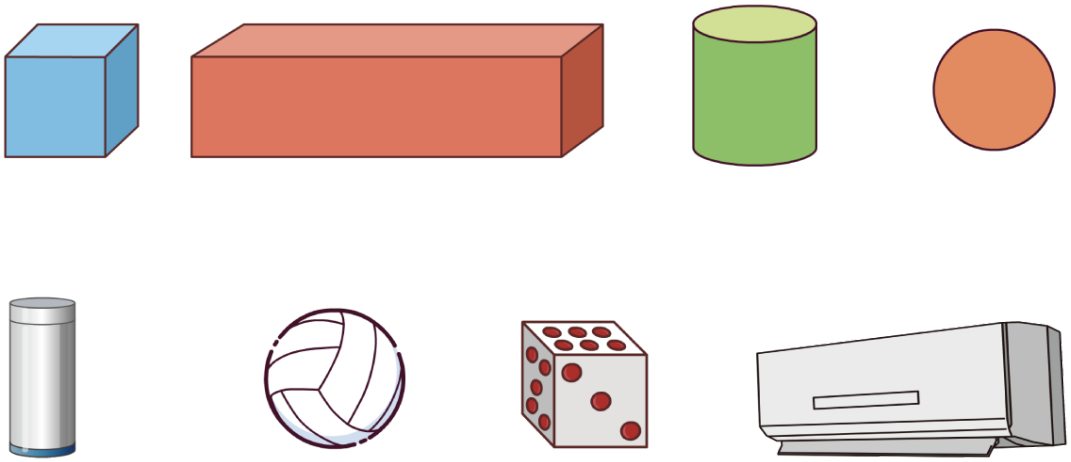
A. 

B. 

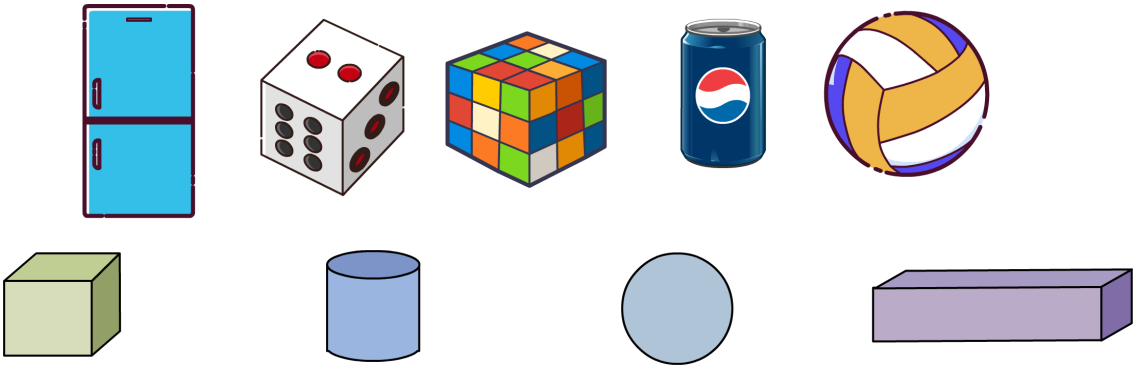
C. 

D. 

22 Match the solid shapes with the correct items!



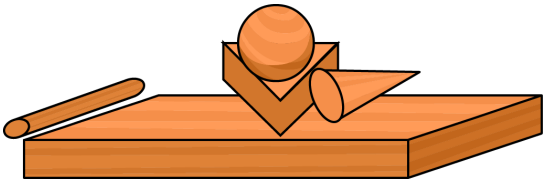
23 What are the solid shapes of these objects? Connect these objects with the matched solid shapes.



24 Which of these objects are prisms? Circle them!



25 Observe the following figures and fill the blanks:

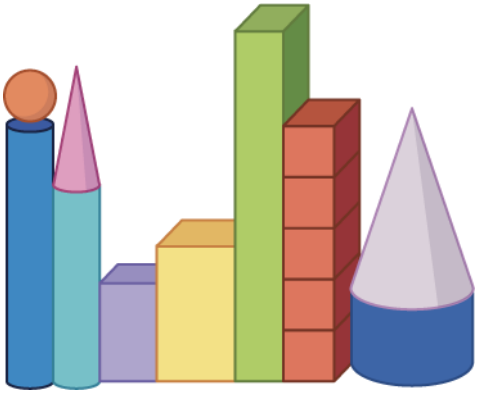


There is(are) _____ cylinder(s).

There is(are) _____ cuboid(s).

There is(are) _____ pyramid(s).

26 Count the number of shapes and fill in the blanks. The cube is also one kind of cuboids.



There is(are) _____ sphere(s).

There is(are) _____ cuboid(s).

There is(are) _____ cube(s).

There is(are) _____ cone(s).

There is(are) _____ cylinder(s).

27 Which solid's faces are all squares?

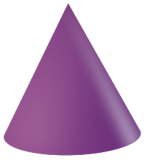
A. cylinder B. cone C. rectangle D. cube

28 Match the following solid shapes with the correct names.

1. 

2. 

3. 

4. 

5. 

6. 

A. Cylinder

B. Sphere

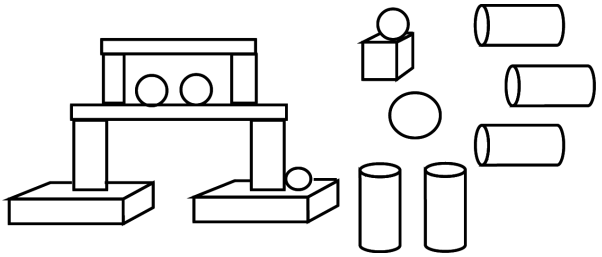
C. Cube

D. Pyramid

E. Rectangular Prism (Cuboid)

F. Cone

29 Which kind of solid shape does not appear in the model below?



A. Sphere B. Cube C. Cylinder D. Pyramid

NOTE



NOTE



Word Problems

Addition and Subtraction Word Problems

1. Peter starts doing problems on a math practice book. He finishes 35 problems by himself. He finishes 15 more problems with the help from Dennis. There are 34 math problems left. In this math practice book, there are _____ problems in total.

2. Jose's Food Truck prepares 100 taccos and burritos in total and 55 of the items are taccos. Jose has _____ more taccos than burritos.



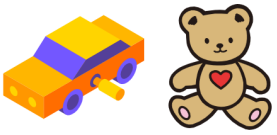
3. The fisherman catches 150 fish. He goes to the market and sells 50 tuna and 20 salmon. Now, the fisherman has _____ fish left.



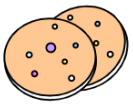
4 Peter has 120 pounds of grass. He feeds 20 pounds to his cows and 35 pounds to his sheep. At the end, Peter has _____ pounds of grass left.



5 A toy store has 60 teddy bears for sale. There are also 12 more toy cars than teddy bears in the store. Altogether, the store has _____ teddy bears and toy cars.



6 Irene bakes a total of 135 milk cookies and chocolate cookies. She sells 35 cookies at the market. Now, Irene has 30 chocolate cookies and _____ milk cookies left.





7 The gym prepares 50 towels for people to use. Today, the manager buys 2 boxes of new towels. In each box, there are 25 towels. Now, the gym has _____ towels ready for use.

8 During the last summer vacation, Nina collected 15 more shells than what she collects this summer. During this summer vacation, she collects 25 shells. Altogether, Nina has _____ shells.

9 Monica has a bag of gold coins. She hides 36 gold coins in the backyard and 24 gold coins in the cabinet. Now, Monica has 70 coins left in the bag. In the beginning, Monica has _____ gold coins in the bag.

10 Nancy makes 2 boxes of cupcakes for sale, and there are 36 cupcakes in each box. She also makes 42 bottles of juice. Altogether, she prepares _____ items for sale.



11 Judy buys 40 donuts for a party. Mira buys 25 more donuts than Judy. In total, they buy _____ donuts.



12 Sammy picks a total of 164 strawberries and blueberries in the orchard. If he picks 50 strawberries, and picks _____ less strawberries than blueberries.





13 Michael collects a total of 85 flower and star stamps. If he collects 15 flower stamps, he has _____ more star stamps than flower stamps.

14 The Adventure Park sells different colors of balloons. By the afternoon, the Adventure Park sells 75 red balloons and 33 green balloons, There are still 20 balloons for sale. In the beginning, the Adventure Park has _____ balloons for sale.



15 There are 95 people in a train. The train arrives at Stop A and 20 people get off. The train goes to Stop B and 10 people get off. In total, there are _____ people in the train at this point.

16 Nancy paints a total of 116 red and green stones for a project. She is clumsy and loses 12 stones. Now, Nancy has 23 green stones and _____ red stones.



17 John has a total of 145 red and blue marbles. He gives Tim 25 marbles. Now, John has 60 red marbles and _____ blue marbles.



18 Jessie has 53 stamps in her collection. Ranson has 42 stamps more than Jessie. In total, they have _____ stamps in their collection.

19 There were 70 books in Sara's Bookstore. Then, she buys 2 new boxes of books, and there are 20 books in each box. Now, Sara has _____ books in the bookstore.

20 The king prepares 182 diamonds to make an artpiece. He uses 60 pink diamonds and 12 yellow diamonds. Now, the king has _____ diamonds left.



21 Jack has a few baskets of strawberries. He uses 54 strawberries to make jelly and sells 70 starwberries at the local market. Now, Jack still has 40 strawberries. In the beginning, Jack has _____ strawberries in total.



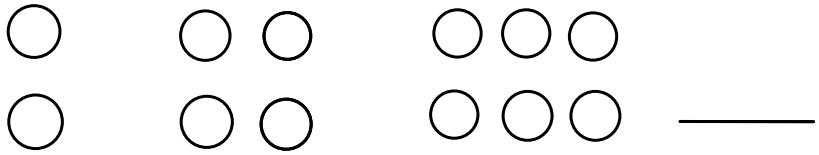
NOTE



Logical Reasoning

Patterns in Shapes

1 Fill the correct figure in the blank.

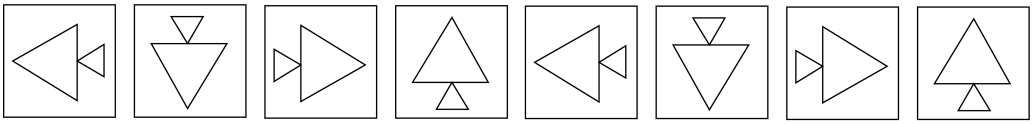


2 Find the pattern and draw the following figures in each picture.

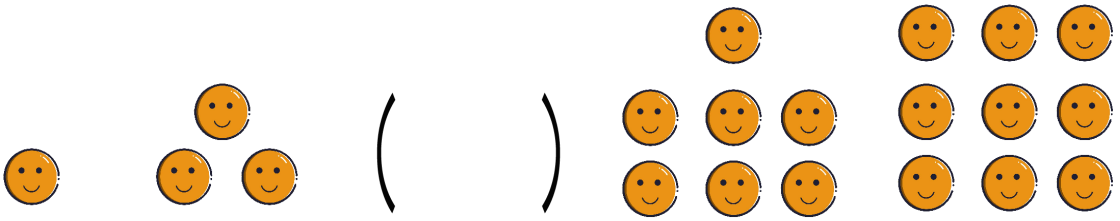
(1) 

(2) 

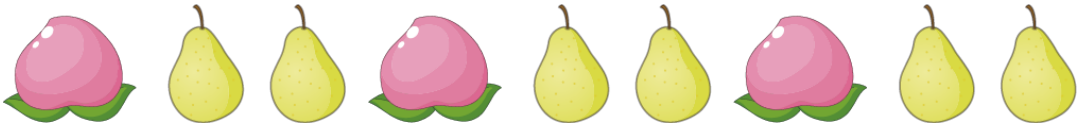
3 According to the pattern, draw the next figure in the blank.



4 How many smiley faces should we put in the blank?



5 Draw the next fruit in the blank.



6 According to the pattern below, which shape should be filled in the blank with the question mark in the next figure?

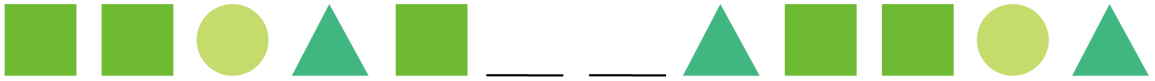


A. 

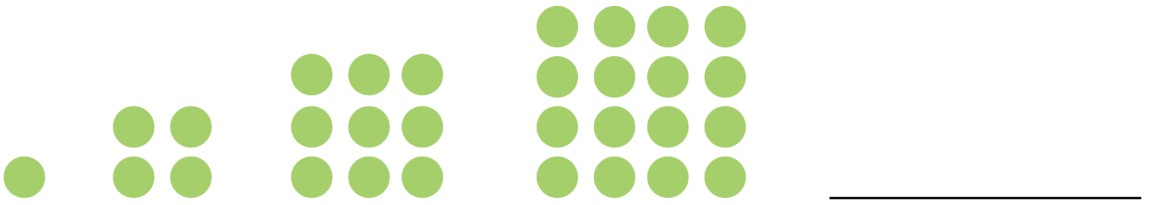
B. 

C. 

7 Find the pattern and fill in the blanks!



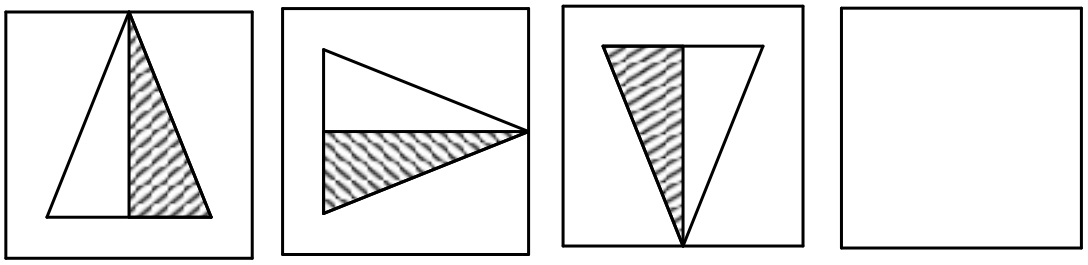
8 How many dots should we put in the blank?



9 In the following pattern, fill in the blank.

▲ ● ▲ ● ● ▲ ● ___ ● ▲ ● ● ● ● ▲ ● ● . . .

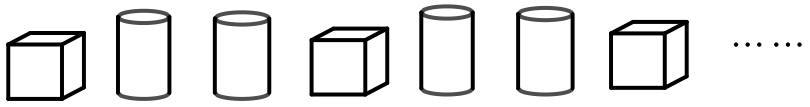
10 Find the pattern and draw the fourth figure.

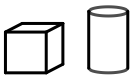


11 Fill the correct images in the blanks.



12 According to the pattern, what are the next two figures?



A. 

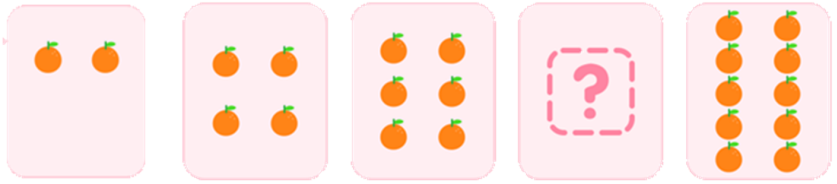
B. 

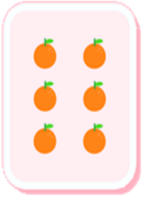
C. 

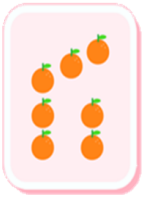
13 Draw the correct images on the blank lines.

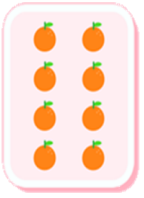


14 According to the pattern below, which shape should be filled in the blank with the question mark?

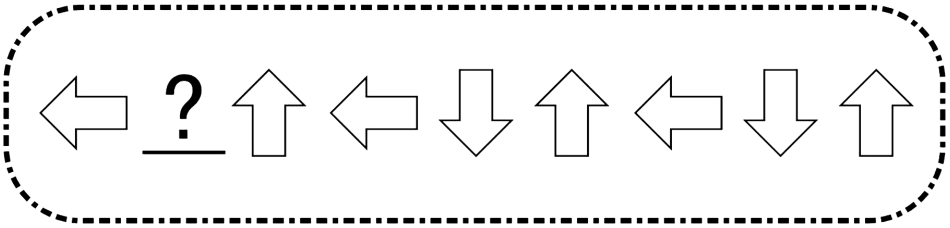


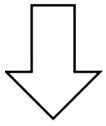
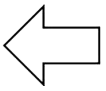
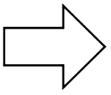
A. 

B. 

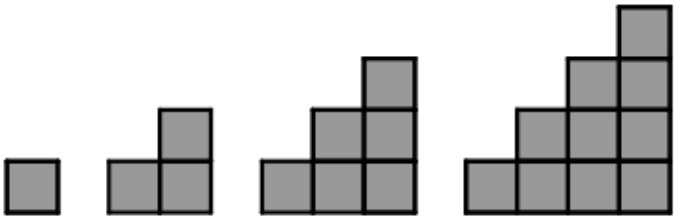
C. 

15 Find the missing shape.



A. 
B. 
C. 
D. 
E. 

16 According to the pattern, draw the figure in the blank.



17 Find the pattern and fill in the blanks!



18 According to the pattern below, which shape should be filled in the blank with the question mark?

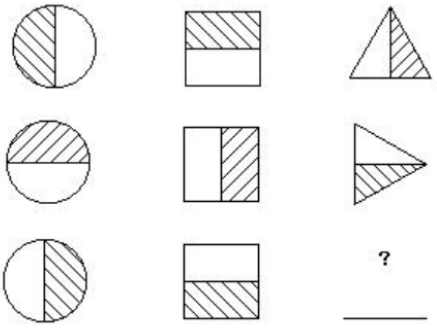


A. 

B. 

C. 

19 According to the pattern, draw the figure in the blank.

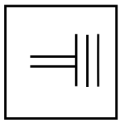


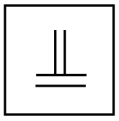
20 Draw the correct figure in the blank.

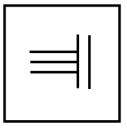


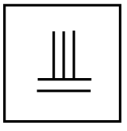
21 According to the pattern below, what will be the fourth graph?



A. 

B. 

C. 

D. 

22 According to the pattern below, which shape should be filled in the blank with the question mark?



A. 

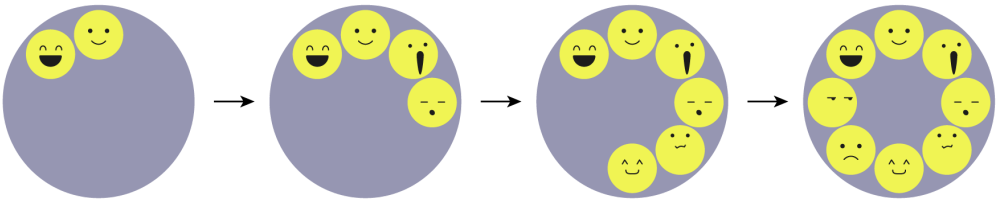
B. 

C. 

23 Count and figure out the pattern.

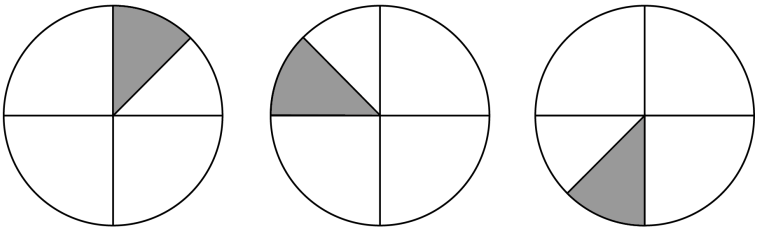


_____ pens fewer at a time.



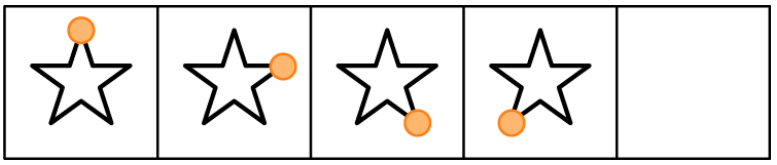
_____ more emojis at a time.

24 By looking at the pattern in the three figures as shown below, can you draw the fourth figure?



_____

25 Find the pattern and choose the correct shape for the blank.



A. 

B. 

C. 

D. 

26 Follow the pattern, the next figure for △☆◯△☆◯△☆◯△…… is ( ) .

A. △　　B. ☆　　C. ◯

Patterns in Numbers

1 Count and fill in the blanks.

+10 +10

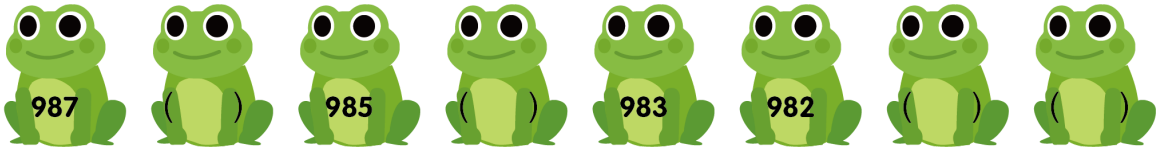
650, 660, 670, ____ , ____ , ____

2 Count and fill in the blanks.

+1 +1 +1

362, 363, 364, 365, ____ , ____ , ____

3 Find the missing numbers.



4 Find the patterns and fill in the blanks.

(1) 65, 58, 51, 44, 37, _____ , …

(2) 77, 66, 55, 44, _____ , 22, …

5 Find the patterns and fill in the blanks.

(1) 5, 7, 9, 11, 13, _____ , 17, …

(2) 37, 48, 59, 70, _____ , …



6 Count and fill in the blanks.



_____ , _____ , _____

7 Find the patterns and fill in the blanks.

(1) 37, 40, 43, 46, 49, _____ , …

(2) 81, 72, _____ , 54, 45, 36, 27, …

(3) 2, 3, 6, 11, 18, _____ , 38, …

(4) 8, 14, 22, 32, _____ , …

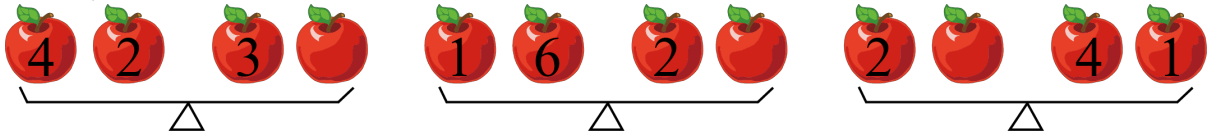
NOTE



Measurement

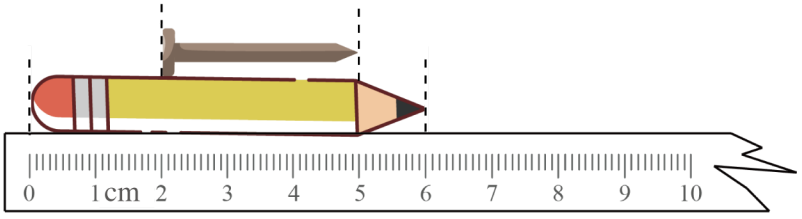
Measuring and Comparing

1 Help Joan balance each of the scales. Write the missing weights on the empty apples.

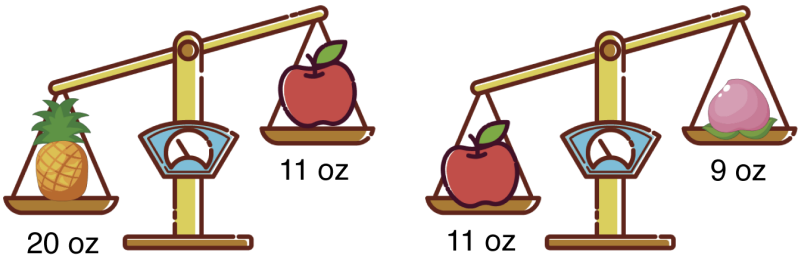


2 The length of the pencil is _____ cm.

The length of the nail is _____ cm.



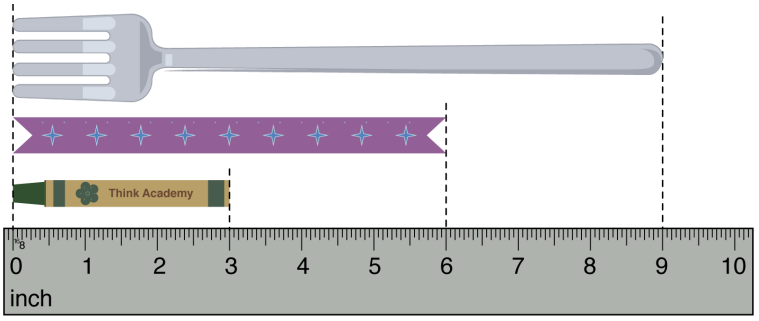
3 Compare the weights of the fruits.



(1) The pineapple is _____ (heavier/lighter) than the apple by _____ oz.

(2) The peach is _____ (heavier/lighter) than the apple by _____ oz.

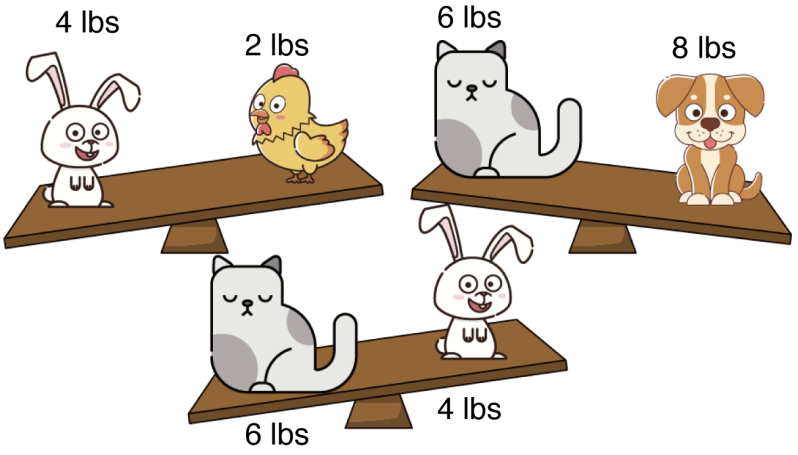
4 Observe the figures below and answer the following questions.



The ribbon is _____ inches long.

The fork is _____ (longer/shorter) than the crayon by _____ inches.

5 Answer the following questions based on the scales below.

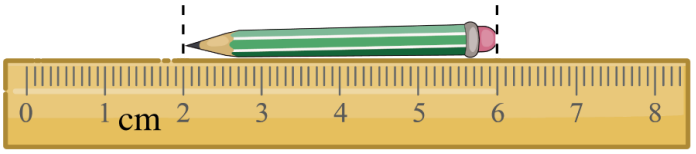


(1) The rabbit is _____ (heavier/lighter) than the chicken by _____ lbs.

(2) The cat is _____ (heavier/lighter) than the dog by _____ lbs.

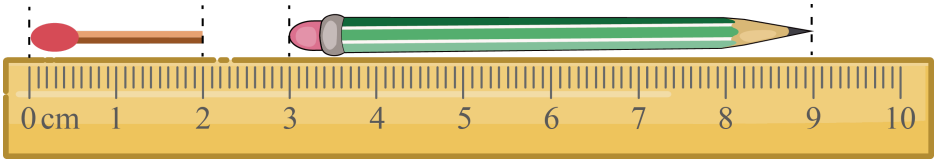
(3) The rabbit is _____ (heavier/lighter) than the cat by _____ lbs.

6 This pencil is _____ cm long.



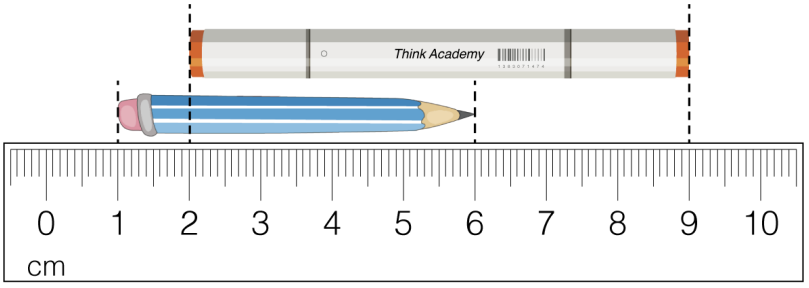
7 The length of the matchstick is _____ cm.

The length of the pencil is _____ cm.

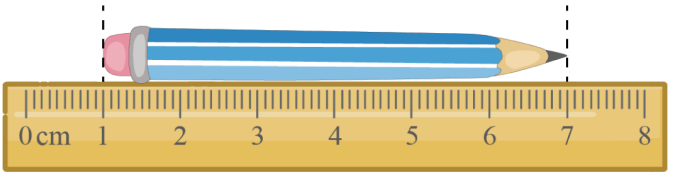


8 The length of the pencil is _____ cm.

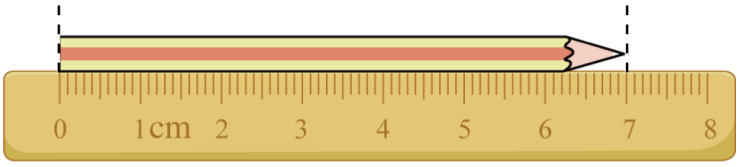
The length of the marker is _____ cm.



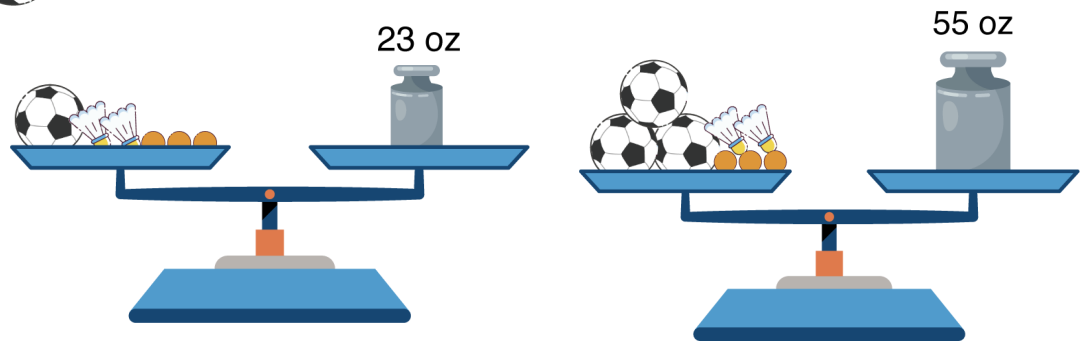
9 The length of this pencil is _____ cm.



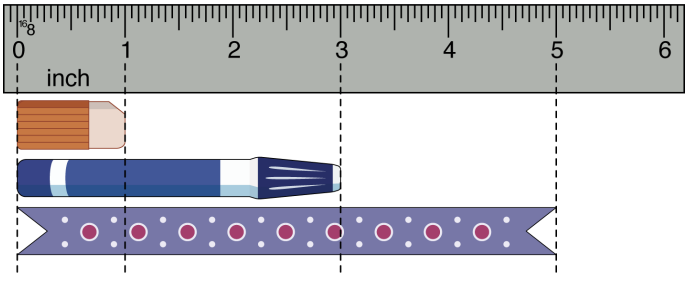
10 This pencil is _____ cm long.



11 A  weighs _____ oz.



12 Observe the figures below and answer the following questions.

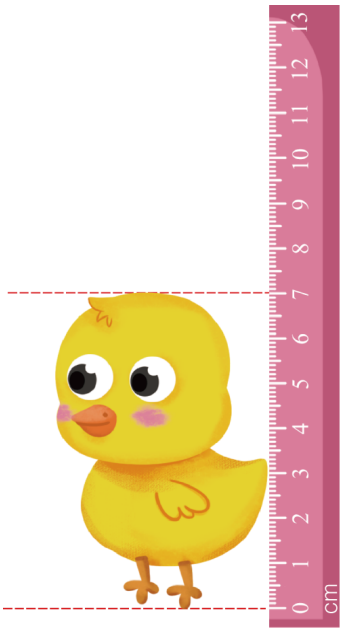


The ribbon is _____ inches long.

The eraser is _____ inch long.

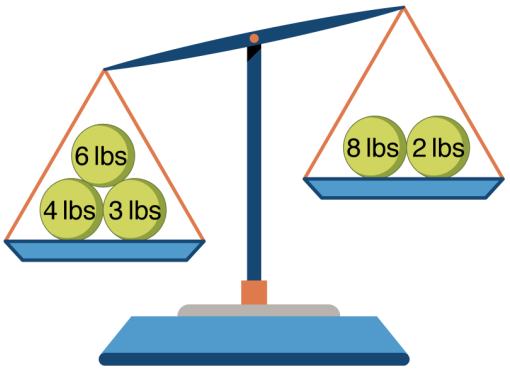
The marker is _____ inches long.

13 The height of this little chick is _____ cm.

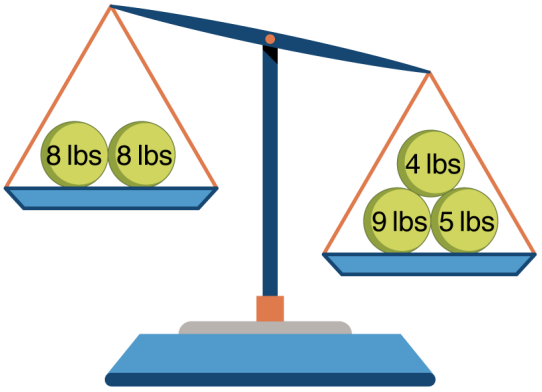


14 The three scales are off-balanced. Add weights to each of the scales so that scales can be balanced.

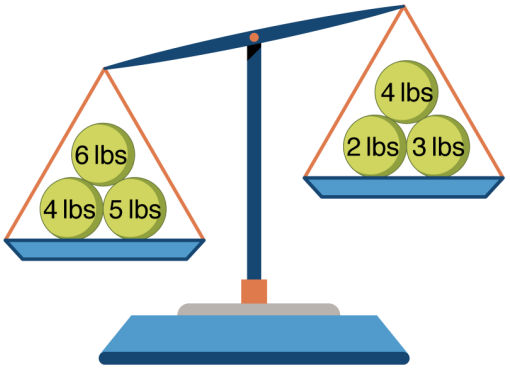
(1) Add _____ lbs to the _____ (left/right) side of the scale.



(2) Add _____ lbs to the _____ (left/right) side of the scale.



(3) Add _____ lbs to the _____ (left/right) side of the scale.



Time and Clock

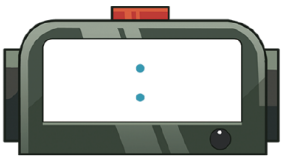
1 Fill in the blanks.

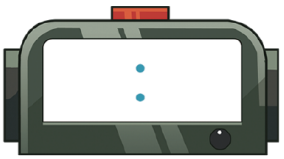
		
1 hour later, it will be _____ : _____ .	10 minutes ago, it was _____ : _____ .	15 minutes later, it will be _____ : _____ .

2 What time does each of the clocks show?



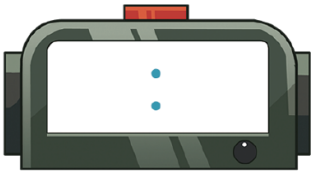






3 Read the clock!





4 Let's read the clocks together!

(1)



A. 12 : 05 B. 12 : 25 C. 5 : 00

(2)

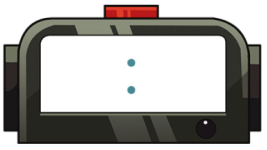


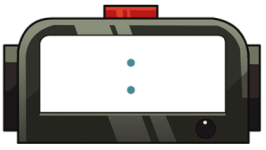
A. 12 : 50 B. 1 : 50 C. 1 : 10

5 Read clocks!









6 Which of the following is showing time of two hours after 7 : 30?

A. 

B. 

C. 

D. 

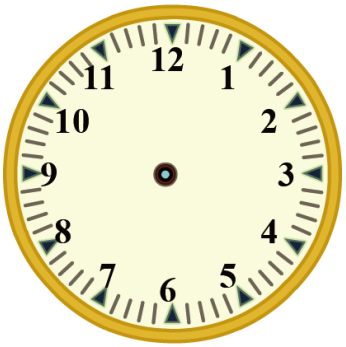
7 What time does the clock show?



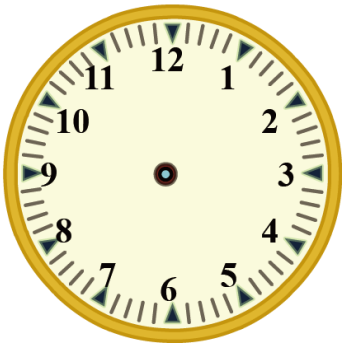
A. 1:00 B. 12:00 C. 1:30 D. 12:30

8 Draw the missing hands for each clock below.

9:30



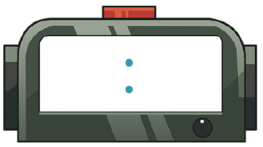
5:00

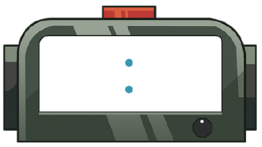


9 What time does each of the clocks show?









NOTE



NOTE



Advanced Math

Number and Operations

Addition and Subtraction Strategies

1 Calculate in an easy way.

(1) 365 – 84 + 24= _____ .

223 – 59 – 41= _____ .

(2) 132 – 64 – 36= _____ .

100 – 28 – 32 = _____ .

2 Calculate:

41 + 15 + 29 = _____

82 – 57 – 11 = _____



3 Calculate:

$71 - 67 + 29 =$ _____

$89 - 39 + 44 =$ _____

4 Fill in the blanks with "+" or "–".

(1) $164 - 59 - 41 = 164 - (59$ _____ $41)$

(2) $289 - 47 - 53 = 289 - (47$ _____ $53)$

5 Calculate in an easy way.

(1) $28 + 17 + 72 =$ _____ .

$12 + 16 + 48 =$ _____ .

(2) $16 + 44 + 78 =$ _____ .

$78 + 43 + 12 =$ _____ .

6 Calculate:

(1) $365 - (65 + 50) =$ _____ .

$241 - (68 + 41) =$ _____ .



(2) $94 - (24 + 37) =$ _____ .

$83 - 16 - 14 =$ _____ .

7 Calculate:

$68 - 26 + 32 =$ _____

$77 - 27 + 15 =$ _____

8 Calculate:

$18 + 41 + 32 =$ _____

$36 + 18 + 21 =$ _____

9 Calculate:

(1) 65 + 42 + 5= _____ .

38 + 67 + 2= _____ .

(2) 25 + 58 + 25 = _____ .

44 + 39 + 16= _____ .

(3) 75 + 59 + 25 = _____ .

34 + 39 + 66= _____ .

10 Calculate in an easy way.

(1) $65 + 34 - 25 =$ _____ .

$27 - 30 + 23 =$ _____ .

(2) $34 - 23 + 43 =$ _____ .

$28 + 12 - 36 =$ _____ .

(3) $74 - 20 + 36 =$ _____ .

$37 + 12 - 17 =$ _____

11 Calculate:

(1) $78 - (18 + 46) =$ _____ .

(2) $81 - (31 + 25) =$ _____ .

(3) $149 - (28 + 79) =$ _____ .

12 Find an easier way to calculate:

(1) $9 + 2 + 1 =$ _____

(2) $18 + 8 - 8 =$ _____

(3) $37 + 28 - 17 =$ _____

(4) $29 + 48 - 8 + 1 =$ _____

13 Calculate:

(1) $221 - 36 - 64 =$ _____ .

(2) $173 - 72 - 28 =$ _____ .

(3) $139 - 17 - 83 =$ _____ .

14 Add or remove parentheses to make these calculations easier.

(1) $78 - 46 - 24 =$ _____ .

(2) $68 - (18 + 14) =$ _____ .

15 Find an easier way to calculate:

(1) $7 + 2 + 3 =$ _____

(2) $16 + 6 - 6 =$ _____

(3) $54 + 28 - 24 =$ _____

(4) $27 + 36 - 16 + 3 =$ _____



16 Calculate:

$36 + 27 + 64 =$ _____ $79 - 32 - 29 =$ _____

17 Add or remove parentheses to make these calculations easier.

(1) $15 + 32 + 28 =$ _____ . (2) $93 - (63 - 19) =$ _____ .

18 Fill in the blanks with "+" or "–".

(1) $221 - 46 - 54 = 221 - (46$ _____ $54)$

(2) 374 – 83 – 17 = 374 – (83 _____ 17)

19 Calculate in an easy way.

(1) 38 + 15 + 62= _____ .

(2) 12 + 26 + 58= _____ .

20 Calculate:

24 + 57 + 16 = _____

19 + 38 + 13 = _____

21 Calculate in an easy way.

(1) $17 + (13 + 29) =$ _____ .

$36 + (24 - 19) =$ _____ .

(2) $44 - (24 - 19) =$ _____ .

$46 - (16 + 18) =$ _____ .

(3) $447 - (26 + 17) =$ _____ .

$289 - 27 - 53 =$ _____ .

Addition and Subtraction within 1000

1 Add using column addition:

(1) $281 + 13 =$ _____

(2) $61 + 228 =$ _____

2 Add and subtract using column addition and column subtraction:

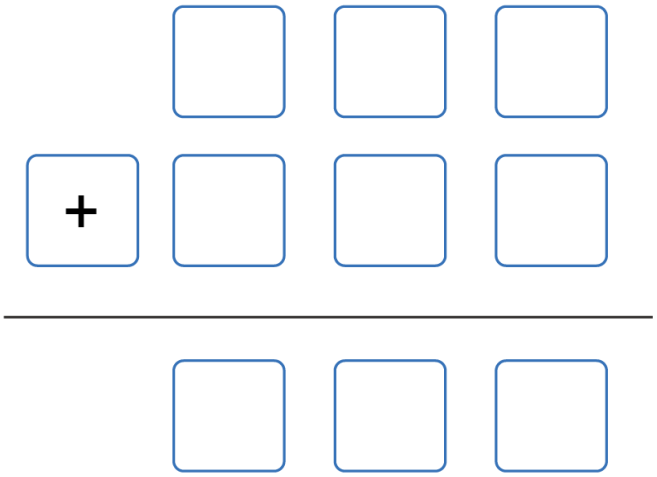
(1) $77 + 86 =$ _____

(2) $254 - 53 =$ _____

(3) $378 + 564 =$ _____

3 Solve the following questions using column addition.

(1) 386 + 149 = _____



(2) 345 + 289 = _____

4 Subtract using column subtraction:

(1) 886 − 97 = _____

(2) 555 − 66 = _____

(3) 278 − 229 = _____



5 Add using column addition:

(1) $537 + 60 =$ _____

(2) $152 + 402 =$ _____

6 Add using column addition:

(1) $396 + 29 =$ _____

(2) $227 + 621 =$ _____

(3) $439 + 143 =$ _____

7 Add using column addition:

(1) 173 + 22 = _____

(2) 31 + 233 = _____

8 Calculate using column addition:

326 + 588



9 Add using column addition:

(1) 72 + 29 =

(2) 69 + 27 =

(3) 225 + 56 =

(4) 556 + 276 =

10 Calculate using column subtraction:

417 – 223

11 Calculate:

(1) 88 + 7 = _____ .

(2) 189 + 22 = _____ .



12 Do you know how to solve $574 - 390$ using column subtraction?

13 Calculate: $694 + 67 =$ _____ .

14 Add using column addition:

(1) $174 + 42 =$ _____

(2) $41 + 262 =$ _____

15 Do you know how to solve $806 + 95$ using column addition?

16 Calculate: $353 - 287 =$ _____ .

17 Add using column addition:

(1) $627 + 40 =$ _____

(2) $148 + 301 =$ _____

Multiplication and Division Calculation

1 Calculate:

(1) $5 \times 3 =$ _____ . $64 \div 8 =$ _____

(2) $6 \times 5 =$ _____ . $32 \div 8 =$ _____

(3) $9 \times 3 =$ _____ . $54 \div 6 =$ _____

(4) $8 \times 3 =$ _____ . $36 \div 9 =$ _____

(5) $4 \times 4 =$ _____ . $16 \div 8 =$ _____



2 There are 5 groups of people playing games, and in each group there are 7 people. There are _____ people playing games in total.

3 5 girls share 40 pieces of candy equally. How many pieces of candy does each girl get?

4 Fill in the blanks.

(1) 4× _____ =24

7× _____ =63

(2) 48 ÷ 8= _____

81 ÷ 9= _____

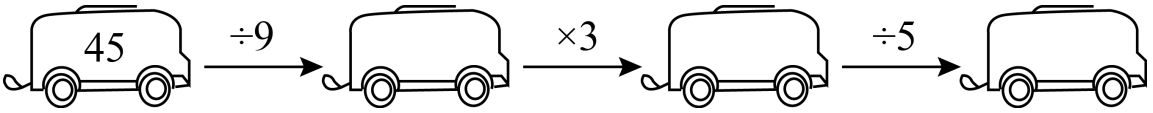
(3) 28 ÷ 4= _____

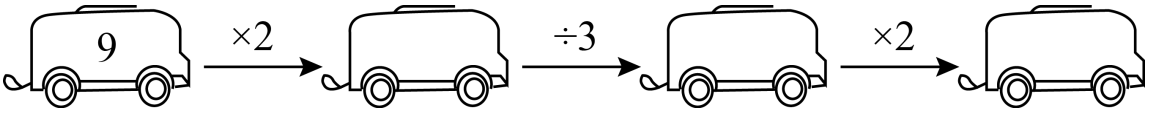
8 × 3= _____

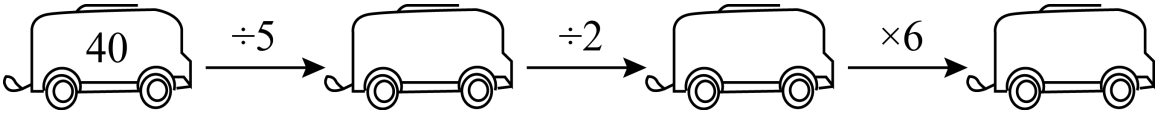
(4) 9 ÷ 3= _____

36 ÷ 9= _____

5 Fill in the blanks.

(1) 

(2) 

(3) 

6 A teacher took 7 children to watch a movie. The price of the ticket for each of them is the same. All the tickets cost $72. How much is each movie ticket? _____ dollars.



7 Calculate:

(1) _____ ×7=42

25÷ _____ = 5

(2) _____ ×8=16

28÷ _____ = 4

(3) _____ ×6=18

30÷ _____ = 5

(4) 2× _____ =12

48÷ _____ = 8

(5) 7× _____ =49

56÷ _____ = 8

(6) 2 × 9= _____

16 ÷ 4= _____

8 Calculate:

(1) $54 \div 6 =$ _____ .

(2) $6 \times 8 =$ _____ .

(3) $12 \div 2 =$ _____ .

(4) $40 \div 5 =$ _____ .

(5) $6 \times 3 =$ _____ .

9 Calculate:

(1) _____ $\times 9 = 36$

$27 \div$ _____ $= 9$

(2) _____ $\times 2 = 14$

$35 \div$ _____ $= 7$

(3) _____ $\times 4 = 8$

_____ $\div 9 = 7$

(4) $5\times$ _____ $=40$

$56\div$ _____ $= 8$

(5) $8\times$ _____ $=72$

$32\div$ _____ $= 8$

(6) $3 \times 8=$ _____

$42 \div 6=$ _____

10 Fill in the blanks.

_____ $\times 8 = 48$

$5\times$ _____ $= 45$

_____ $\times 8 = 24$

$7\times$ _____ $= 14$

_____ $\times 1 = 9$

$5\times$ _____ $= 40$

_____ $\times 9 = 36$

$6\times$ _____ $= 12$

$3\times$ _____ $= 18$

11 Debby has 15 fish. She puts 3 fish in each fish tank. How many fish tanks does she need?

12 Calculate:

(1) $12 \div 6 =$ _____ .

(2) $9 \times 4 =$ _____ .

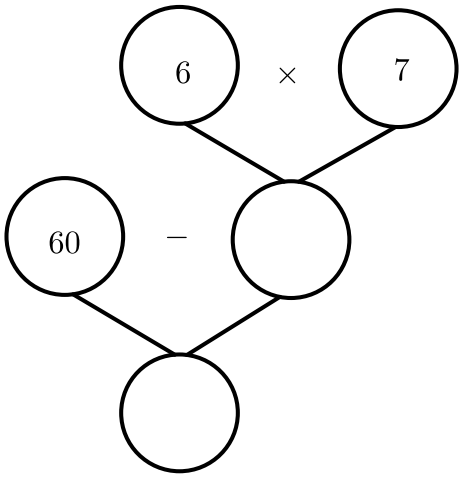
(3) $30 \div 5 =$ _____ .

(4) $48 \div 6 =$ _____ .

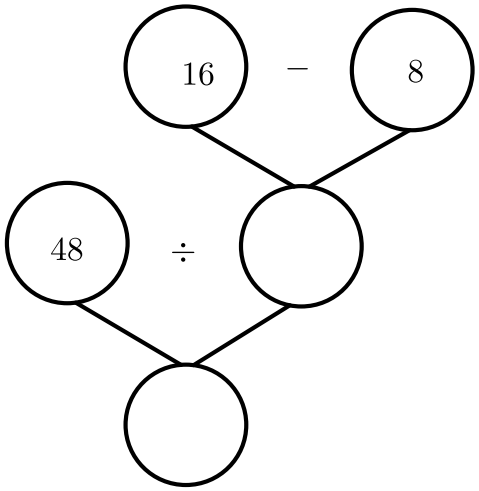
(5) $5 \times 5 =$ _____ .

13 Observing the pictures below, fill in the blanks.

(1)



(2)



14 Calculate:

(1) $22 \div 3 =$ _____ R _____

(2) $34 \div 4 =$ _____ R _____

(3) $42 \div 5 =$ _____ R _____

(4) $68 \div 9 =$ _____ R _____

15 Calculate:

(1) $32 \div 8 =$ _____

(2) $4 \times 9 =$ _____

(3) $16 \div 4 =$ _____

(4) $0 \div 8 =$ _____

(5) $6 \times 8 =$ _____



16 Calculate:

(1) $8 \div 4 =$ _____ .

(2) $5 \times 5 =$ _____ .

(3) $9 \div 3 =$ _____ .

(4) $63 \div 7 =$ _____ .

(5) $3 \times 8 =$ _____ .

17 A hamburger costs 4 dollars. Petra has 20 dollars. She can buy _____ hamburgers of the same kind.

18 Fill in the blanks.

(1) $72 \div 8 =$ _____

(2) $40 \div 8 =$ _____

(3) $9 \times$ _____ $= 36$

(4) $3 \times$ _____ $= 27$

(5) _____ $\times 7 = 49$

19 Jenny bought 8 T-shirts. Each T-shirt costs 5 dollars. How much did she spend?



20 Calculate:

(1) $72 \div 8 =$ _____ .

(2) $6 \times 7 =$ _____ .

(3) $16 \div 4 =$ _____ .

(4) $36 \div 6 =$ _____ .

(5) $9 \times 5 =$ _____ .

21 Calculate:

(1) $8 \div 8 =$ _____

(2) $9 \times 5 =$ _____

(3) $42 \div 6 =$ _____

(4) $49 \div 7 =$ _____

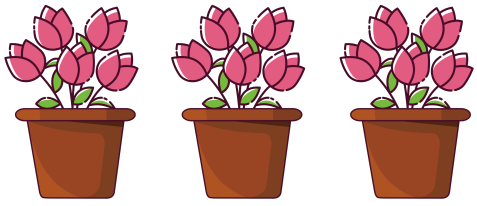
(5) $9 \times 8 =$ _____

22 Observing the pictures, write the multiplication and division equations.

_____ × _____ = _____

_____ ÷ _____ = _____

_____ ÷ _____ = _____



23 There are 3 teams. Each team has 7 girls. There are _____ girls.

24 Calculate:

(1) 7 × 9 = _____ .

(2) 9 × 7 = _____ .

(3) 63 ÷ 7 = _____ .

(4) 63 ÷ 9 = _____ .



(5) $35 \div 5 =$ _____ .

(6) $36 \div 4 =$ _____ .

(7) $49 \div 7 =$ _____ .

(8) $54 \div 9 =$ _____ .

25 21 boys are divided into some teams. There are 7 boys in each team. There are _____ teams.

26 There are 4 eggs on each plate. How many eggs are there on 7 plates?

27 Calculate:

(1) $7 \times 6 =$ _____ .　　$64 \div 8 =$ _____ .

(2) $7 \times 9 =$ _____ .　　$4 \div 2 =$ _____ .

(3) $7 \times 3 =$ _____ .　　$6 \div 2 =$ _____ .

(4) $4 \times 5 =$ _____ .　　$2 \div 1 =$ _____ .

NOTE



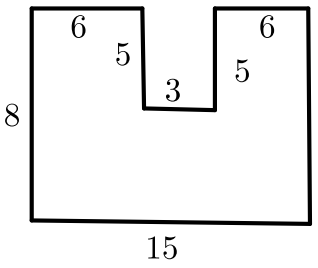
NOTE



Geometry

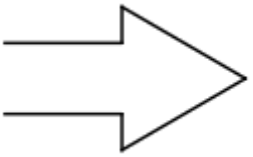
Understand the Perimeter

1 The perimeter of the figure below is _____ .



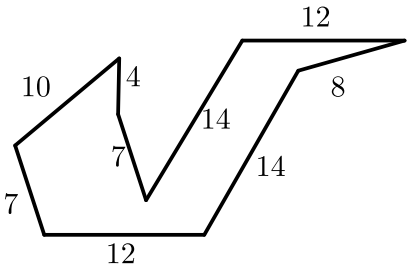
2 Which of the following figures does not have a perimeter?

A. 

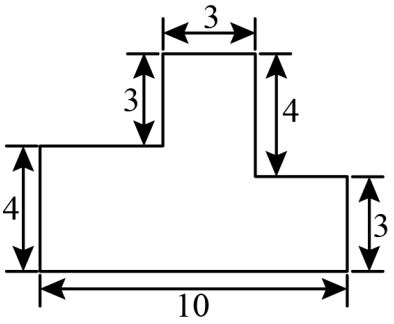
B. 

C. 

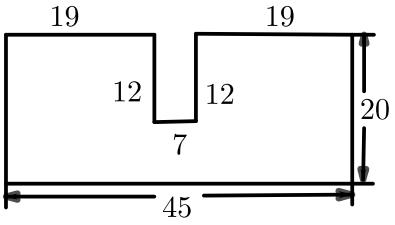
3 The perimeter of the figure below is _____ . (unit: cm)



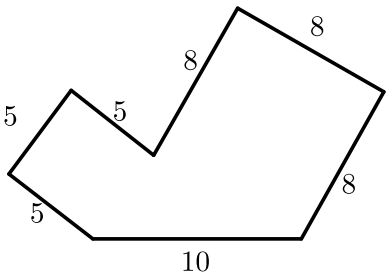
4 The perimeter of the figure below is _____ .



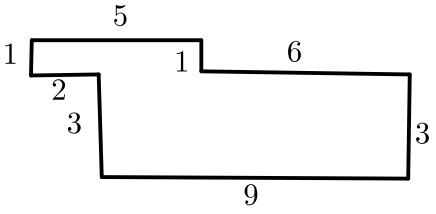
5 The perimeter of the figure below is _____ .



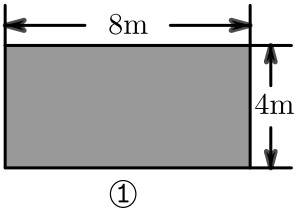
6 The perimeter of the figure below is _____ . (unit: cm)



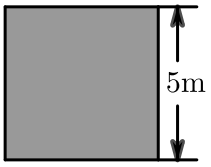
7 The perimeter of the figure below is _____ . (unit: cm)



8 Fnd the perimeter of the shapes below!

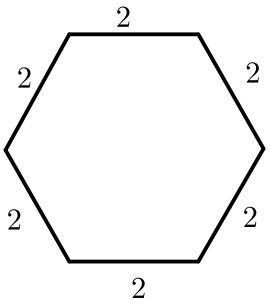


①



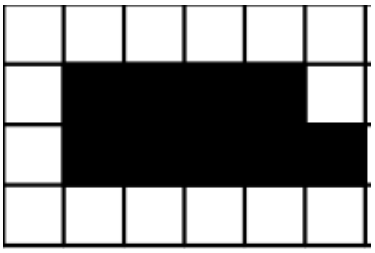
②

9 The perimeter of the figure below is _____ .

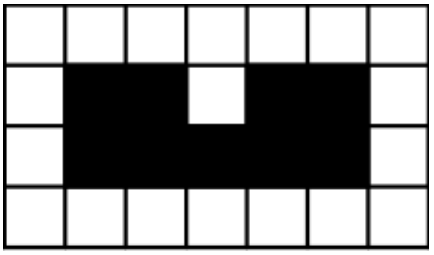


10 The following shapes are made by identical squares with a side length of 1 cm. Find the perimeter of each shaded part.

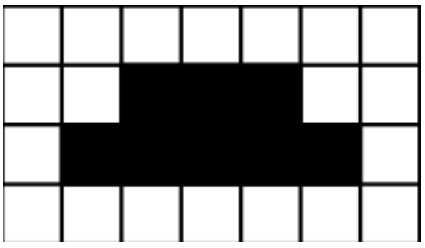
(1) The perimeter is _____ cm.



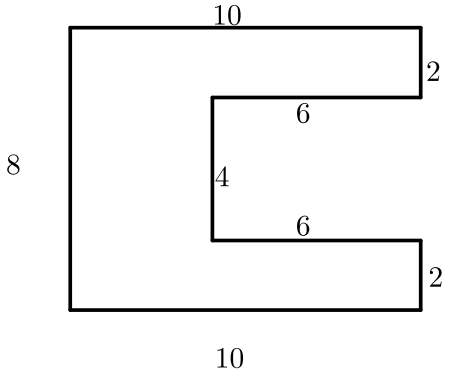
(2) The perimeter is _____ cm.



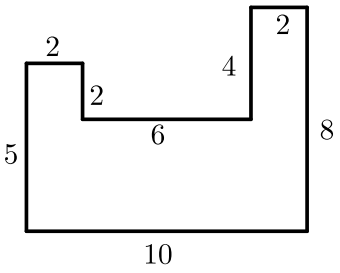
(3) The perimeter is _____ cm.



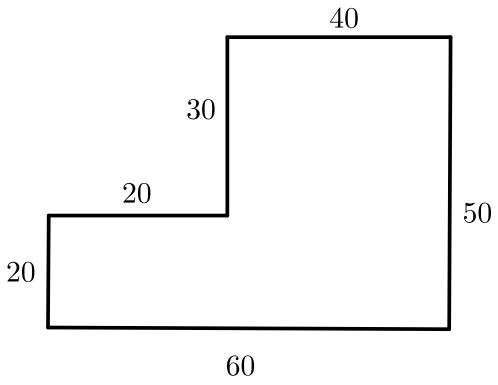
11 The perimeter of the figure below is _____ .



12 The perimeter of the figure below is _____ . (unit: cm)

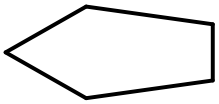


13 The perimeter of the figure below is _____ .

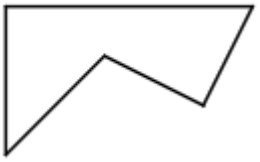


14 Which of the following figures does not have a perimeter?

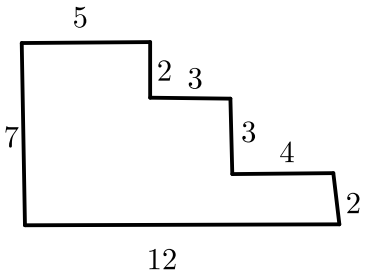
A. 

B. 

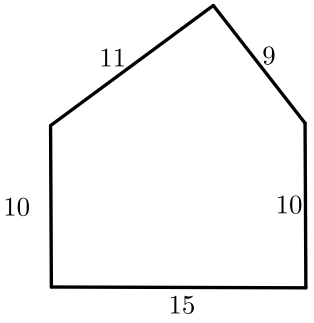
C. 

D. 

15 The perimeter of the figure below is _____ .

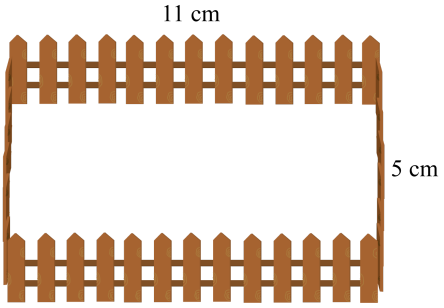


16 The perimeter of the figure below is _____ . (unit: cm)



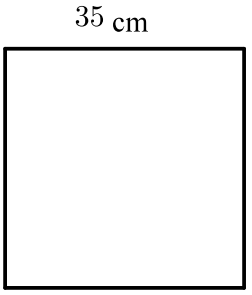
The Perimeter of Rectangle and Square

1 Tom, a little ant, wants to make a little fence for his flowers. The length of the fence is 11 cm and the width of it is 5 cm. What is the perimeter of the fence?



2 Fill in the blanks.

(1) A is a square. What is the perimeter of shape A?



A

(2) B is a rectangle. What is the perimeter of shape B?

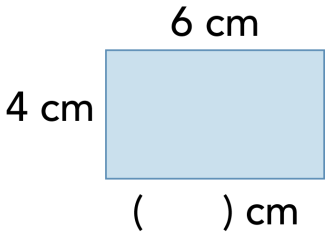


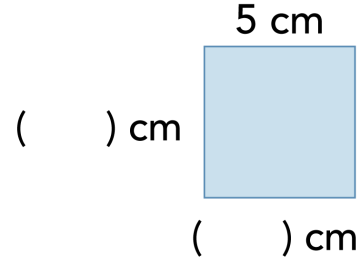
B

3 The perimeter of a rectangular window is 40 inches, and the length of this rectangular window is 12 inches. The width is _____ inches.

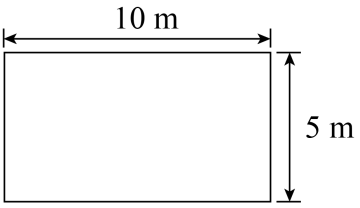
4 There is a square playground with a side length of 200 m in Think Academy. Tom runs three laps around the playground. How far does he run in total?

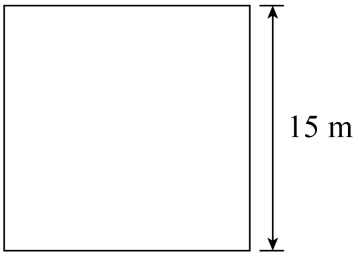
5 Fill the blanks and work out the perimeters of the rectangle and square.



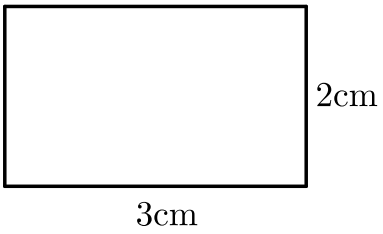


6 As shown in the figures below, the perimeter of the rectangle is _____ m. The perimeter of the square is _____ m.



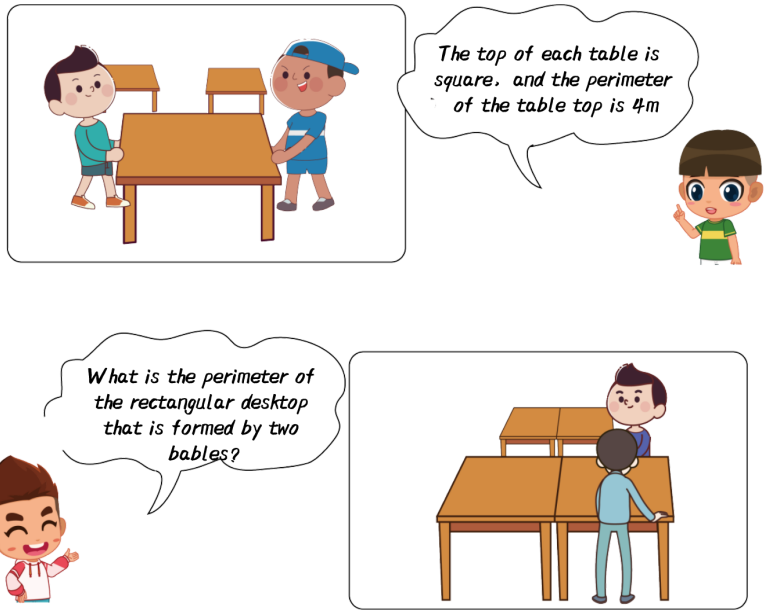


7 Which of the following ways to calculate the rectangle is wrong?



A. $3 \times 2 \times 2$ B. $(3 + 2) \times 2$ C. $3 \times 2 + 2 \times 2$ D. $3 + 2 + 3 + 2$

8 Students are decorating the classroom for an event.



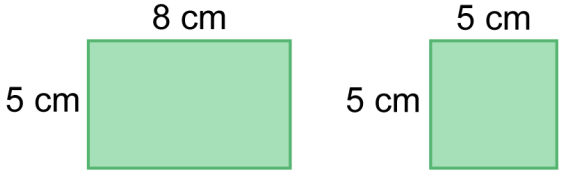
9 Tina wraps the tape of 64 cm around two squares of the same size separately. What is the side length of each square?

10 One side of a rectangle is 8 cm long, while the other is half as long. A square has the same perimeter as the rectangle. What is the side length of the square?

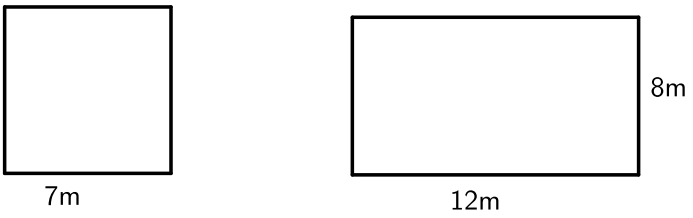
A. 3 cm B. 4 cm C. 6 cm D. 12 cm

11 There is a rectangular garden with a perimeter of 80 meters and a width of 10 meters. The length of this garden is _____ meters.

12 The perimeter of the rectangle is _____ cm. The perimeter of the square is _____ cm.

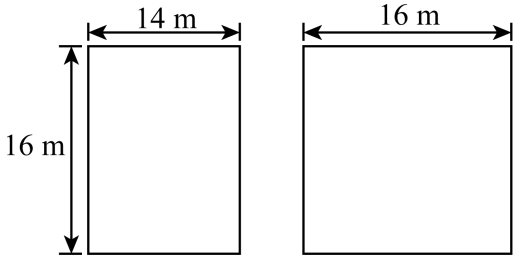


13 Perimeter of the square is _____ m. Perimeter of the rectangle is _____ m.

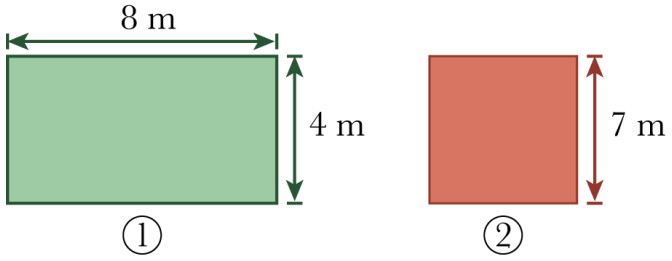


14 There is a rectangular tile with a perimeter of 60 inches and a length of 20 inches. The width of this tile is _____ inch(es).

15 As shown in the figures below, the perimeter of the rectangle is _____ m. The perimeter of the square is _____ m.



16 ① is a rectangle and ② is a square. Find the perimeters of the two shapes.



17 There is a rectangular playground with a length of 230 m and a width of 170 m in Think Academy. Candy runs two laps around the playground. How far does she run in total?

18 The length of a rectangle is 23 cm. Its width is 3 cm less than its length. The perimeter of this rectangle is _____ cm.

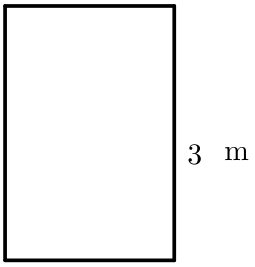
19 Alison uses a rope of 36 cm to make a square. What is the side length of this square?

20 Find the perimeters of the shapes below.

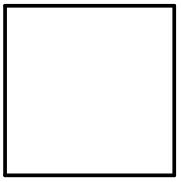
(1)



(2)

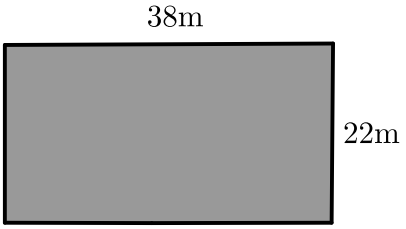


(3)

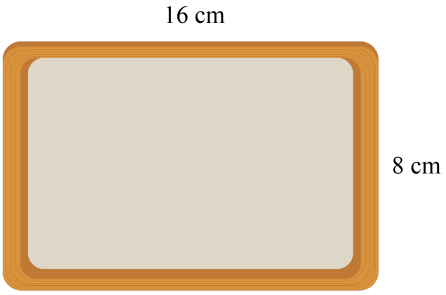


21 There is a rectangular garden with a length of 380 inches and a width of 120 inches on campus. Betty runs 3 laps around the garden. How far does she run?

22 What is the perimeter of this rectangle?



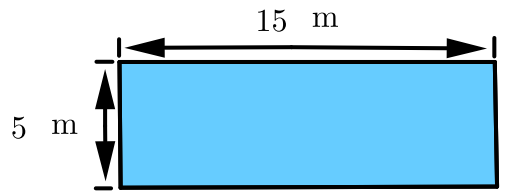
23 Amy wants to use some wood sticks to make a rectangular photo frame. The length of the frame is 16 cm and the width is 8 cm. How many centimeters of wood sticks does Amy need?



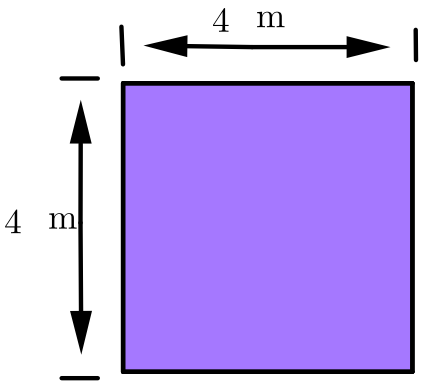
24 There is a rectangular playground with a length of 260 m and a width of 140 m on campus. David runs 4 laps around the playground. How far does he run?

25 Find the perimeter of the shapes below.

(1)



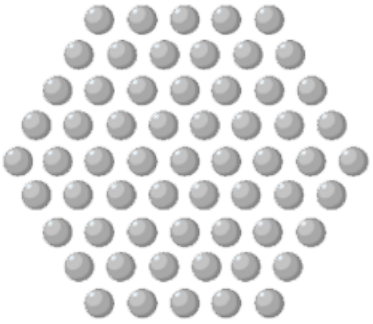
(2)



26 If the perimeter of a small square is 16 centimetres and the perimeter of a large square is 80 centimetres, what is the difference between the side lengths of the small square and the large square in centimetres?

Counting Plane Shapes

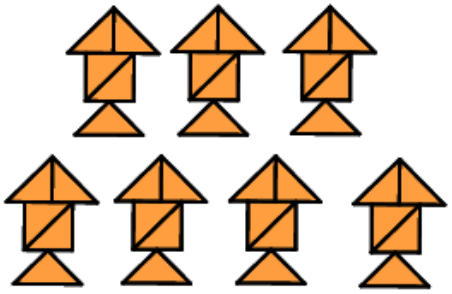
1 How many circles are there in the figure?



2 How many line segments are there in total?



3 How many small triangles of the same size are there in the figure?



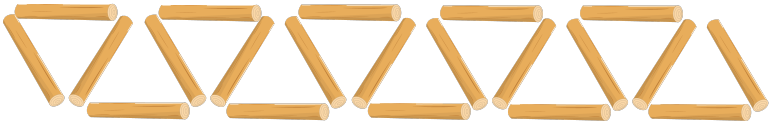
4 How many rectangles are there?



5 There are _____ rectangles in total.



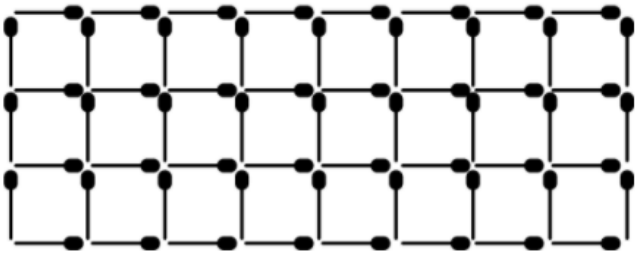
6 How many wooden sticks are there in the figure?



7 How many line segments are there in total?



8 How many matchsticks are there in the figure?

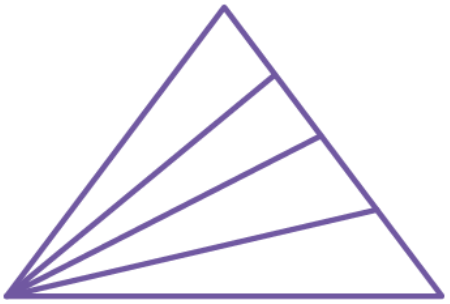


9 How many triangles are there in the figure?



10 Count the following shapes:

(1) There are in total ( ) triangles.



(2) There are in total ( ) rectangles.



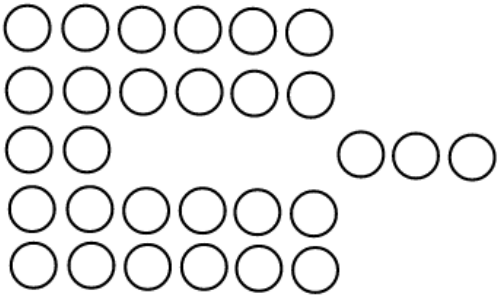
11 How many line segments are there in total?



12 How many gifts are there in the figure?

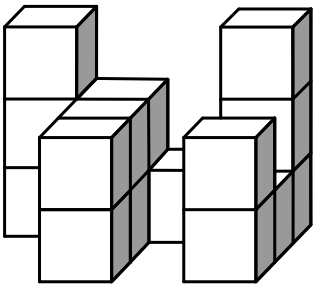


13 How many circles are there in the figure?

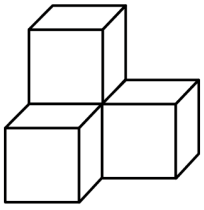


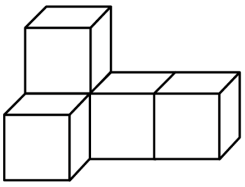
Counting Cubes

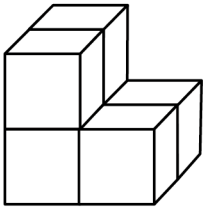
1 How many cubes are used to build the figure below? _____

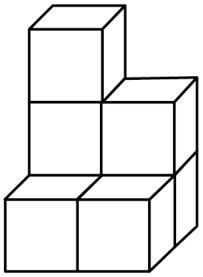


2 Which of the following figures is composed of six cubes?

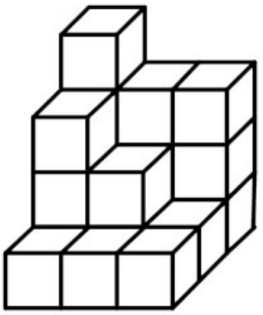
A. 

B. 

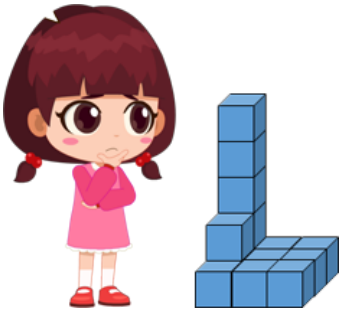
C. 

D. 

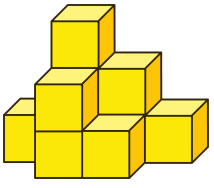
3 There are _____ cubes that cannot be seen.

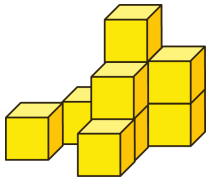


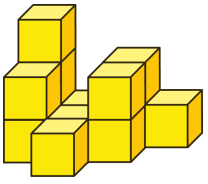
4 Help Nina figure out how many cubes are used to build the figure below. _____

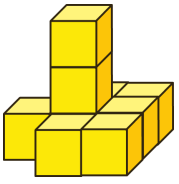


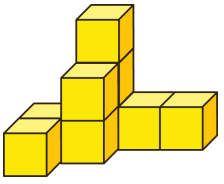
5 Which of the following figures is built with the same number of cubes as that of the figure below? ( ) .



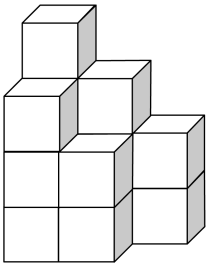
A. 

B. 

C. 

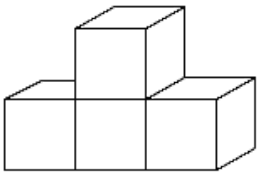
D. 

6 There are _____ cubes that cannot be seen.

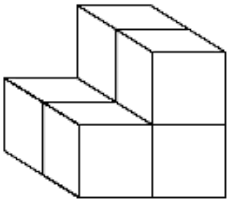


7 How many cubes are used to build each of the figures as shown below?

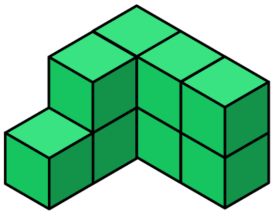
_____



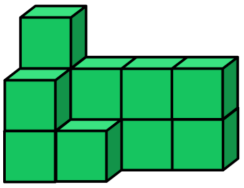
_____



8 How many cubes are used to build the figure below?

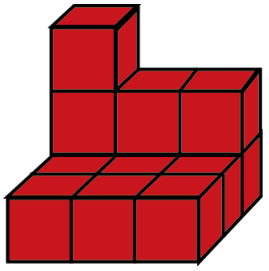


( )

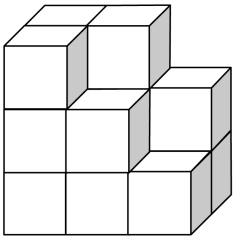


( )

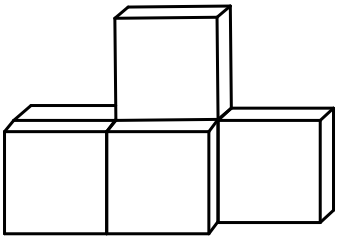
9 How many cubes are used to build the figure below? _____



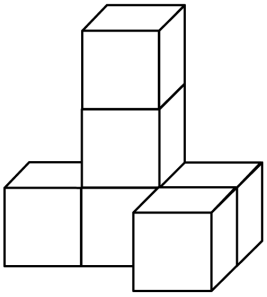
10 There are _____ cubes that cannot be seen.



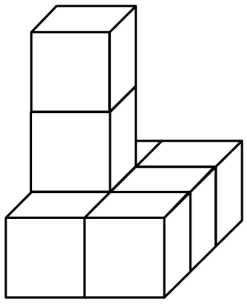
11 _____ cubes are used to build the figure below.



12 How many cubes were used to build each of the figures shown below ?

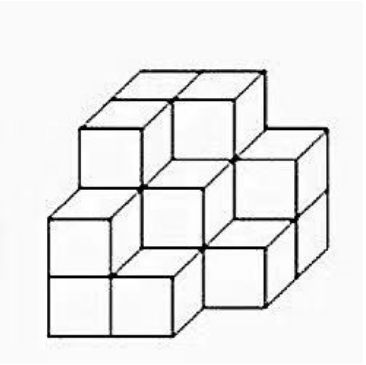


( )

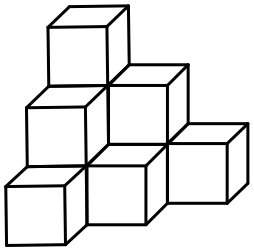


( )

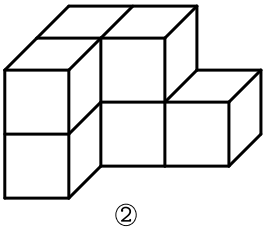
13 There are _____ cubes in total.



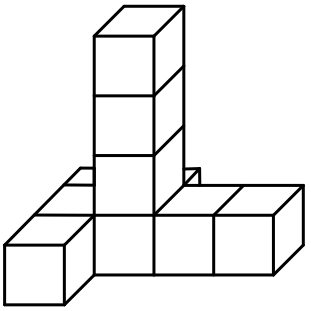
14 How many cubes are used to build the figure below?



①



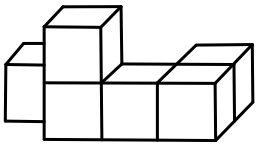
②

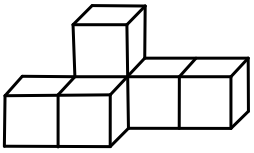


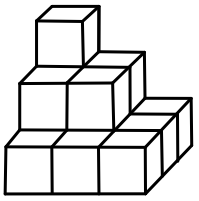
③

	①	②	③
number of cubes			

15 How many cubes are used to build each of the figures as shown below?

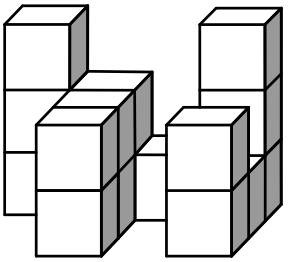




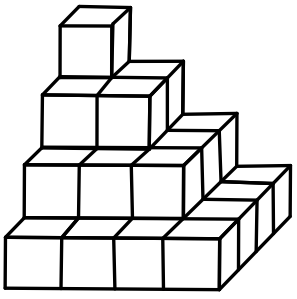


_____ _____ _____

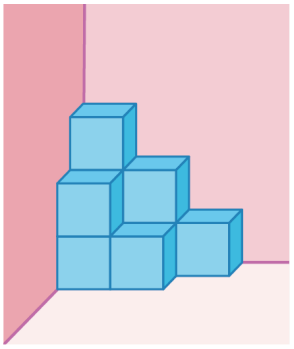
16 How many cubes are used to build the figure below?



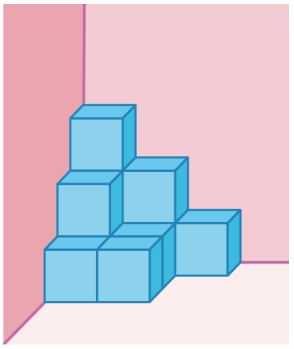
17 How many cubes are used to build the figure below?



18 How many cubes were used to build each of the figures shown below?

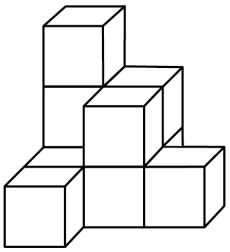


( )

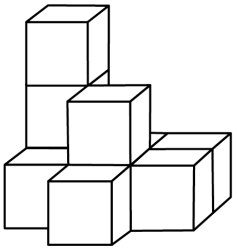


( )

19 How many cubes were used to build each of the figures shown below ?

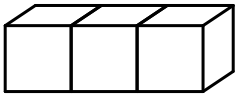
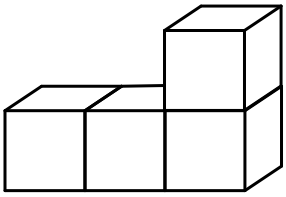
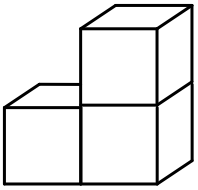
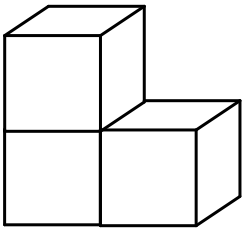


( )

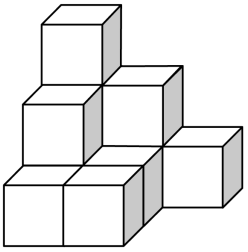
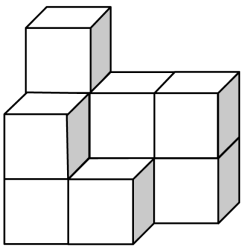


( )

20 The figures are built of _____, _____, _____, and _____ cubes, respectively.

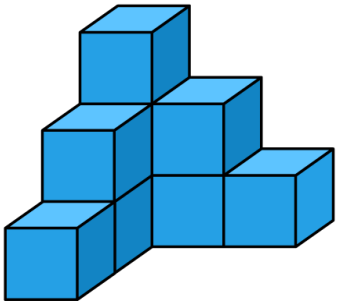





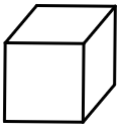
21 How many cubes were used to build each of the figures shown below ?

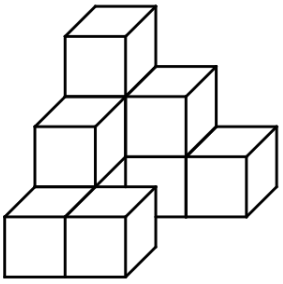



( ) ( )

22 How many cubes are used to build the figure below? _____

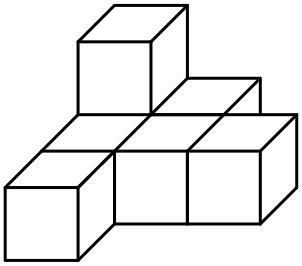


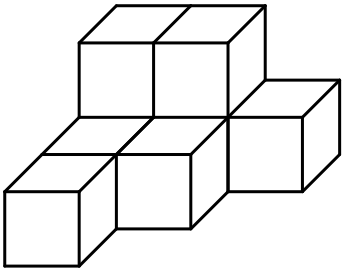
23 ( )  are used to build the figure below.

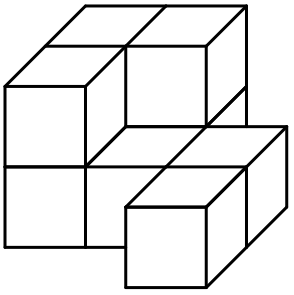


A. 6　　B. 8　　C. 10

24 How many cubes are used to build each of the figures as shown below?







NOTE



NOTE



Word Problems

Multiplication and Division Problems

1 Observe the pictures below. Fill in the blanks with the appropriate numbers and make the expressions true.

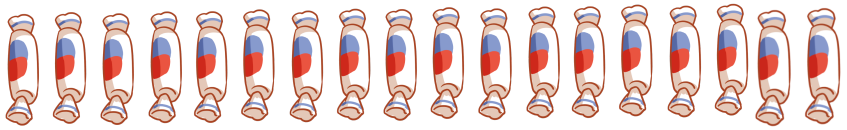
(1) 

There are _____ apples in total. If we divide them equally among 2 plates, there will be _____ apples on each plate.

_____ ÷ _____ = _____ .

There are _____ apples in total. If we put 4 apples on each plate, we need _____ plates in total.

_____ ÷ _____ = _____ .

(2) 

There are _____ pieces of candy in total. If we divide them equally among 3 children, each child can get _____ pieces of candy.

_____ ÷ _____ = _____ .

There are _____ pieces of candy in total. If we give each child 6 pieces of candy as a gift, _____ children can get gifts.

_____ ÷ _____ = _____ .

2 (1) How many stars are there in total?

Use addition to find the answer:



Use multiplication to find the answer:

(2) How many smiley faces are there in total?

Use addition to find the answer:

Use multiplication to find the answer:





3 Bob eats 2 apples each day. How many apples does he eat in a week?

A. 8 B. 10 C. 12 D. 14

4 Mr.Monkey eats 42 peaches in 7 days and he eats the same amount of peaches everyday. How many peaches does Mr.Monkey eat in each day?

A. 2 B. 4 C. 6 D. 14

5 One pineapple can make two pineapple cakes. How many pineapples do you need to make 10 pineapple cakes?

6 Mike reads 10 pages before going to bed every day. He has read 100 pages. How many days has Mike read?

A. 1 B. 5 C. 10 D. 20

7 Three eggs can make 2 packets of biscuits. How many eggs do you need to make 12 packets of biscuits?

8 June reads 8 pages before going to bed every day. She has read 72 pages. How many days has June read?

A. 7 B. 8 C. 9 D. 10



9 Amy and her five friends have breakfast together. Each of them eats two eggs this morning. How many eggs do they eat in total?

10 30 students participate in an activity. Every 6 students can be divided into a group. How many groups can they be divided into?

Lining Up Problems

1 Candice is on her way to school. As she is waiting in line to get on the bus, there are 10 people in front of her and 3 people behind her. In total, how many people are there in the line?

A. 12 B. 13 C. 14 D. 15

2 Nate is standing in a line to get some food. Counting from the front, he is the 9^{th} person in the line. Counting from the back, he is the 3^{th} one. How many people are there lining up?

A. 10 B. 11 C. 12 D. 13

3 15 children line up to visit the science museum. There are 8 children behind Jessica. How many children are there in front of her?



4 Sophie is waiting in a line to buy the tickets for the movie. There are 8 people in front of her, and 5 people behind her. In total, how many people are waiting in the line?

5 Yolan and Eve are standing in a line. There are 5 people in front of Yolan, and 2 people behind Eve. Eve is right behind Yolan (no one is between them). How many people are there in the line in total?

A. 6 B. 7 C. 8 D. 9

6 Some students are lining up at the cafeteria. Ellie is the third from the back and the seventh from the front. How many students are there lining up in total?

A. 9 B. 7 C. 8 D. 5

7 Maddy and Cassie are standing in a line. There are 2 people in front of Maddy, and 6 people behind Cassie. Cassie is right behind Maddy (no one is between them). How many people are there in the line in total?

A. 6 B. 7 C. 9 D. 10

8 Charles is driving his car and waiting in front of the red light. There are 4 cars in front of his car, and there are 8 cars behind his car. How many cars in total are waiting in front of the red light?

9 Kiki is in a line to get cupcakes. There are 7 people in front of her, and 11 people behind her. How many people are there in total?





10 Julie is on the way back home. As she is waiting in line to get on the bus, there are 7 people in front of her, and 5 people behind her. In total, how many people are there in the line?

A. 8 B. 11 C. 12 D. 13

11 Jony is in a line to buy movie tickets. The line is so long that there are 10 people in front of him and 6 people behind him.
There are _____ people in the line.

12 Some students are lining at bookstore. Mike is the second from the back, and the sixth from the front. How many students are there lining up in total?

A. 8 B. 7 C. 6 D. 5

13 Nabi is lining up to get some drink. Counting from the front, she is the 8^{th} in the line. Counting from the back, she is the 4^{th}. How many people are there lining up?

A. 9 B. 10 C. 11 D. 12

14 Some kangaroos are lining at bakery. Tom is the third kangaroo from the back, and the fifth from the front. How many kangaroos are there lining up in total?

A. 8 B. 7 C. 6 D. 5

15 There are some children standing in a line. Justin is the fourth from the left and the second from the right. There are _____ children in the line.



16 There are some children standing in a line. Amy is the fifth counting from the left and the sixth counting from the right. There are _____ children in the line.

17 There are some children standing in a line. Tom is the sixth from the left and the third from the right. There are _____ children in the line.

18 Cindy and Joe are standing in a line. There are 3 people in front of Cindy, and 3 people behind Joe. Joe is right behind Cindy (no one is between them). How many people are there in the line in total?

A. 6 B. 7 C. 8 D. 9

19 10 students line up. Sam is the fifth from left to right. He is the _____ th from right to left.

20 16 students line up. Sam is the eleventh from left to right. He is the _____ th from right to left.

21 Gab and Stuart are in a line. Gab is the third from the front, and Stuart is the sixth from the back. There are two people between them. How many people are there in the line in total?

A. 11 B. 12 C. 13 D. 14



22 Nathen and Andy are in a line. Nathen is the second from the front, and Andy is the sixth from the back. There are two people between them. How many people are there in the line in total?

A. 10 B. 12 C. 13 D. 8

23 In a speech contest, Ricky was the seventh to give a speech. How many children are there in front of him?

24 Anna is lining up to get some ice-cream. Counting from the front, she is the 4^{th} in the line. Counting from the back, she is the 7^{th}. How many people are there lining up?

A. 9 B. 10 C. 11 D. 12

25 18 children are lining up to visit the art museum. There are 9 children behind Kevin. How many children are there in front of him?

NOTE



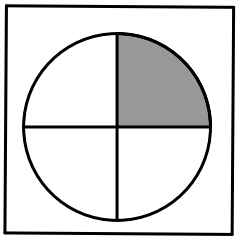
NOTE



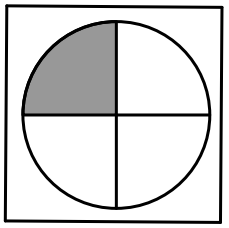
Logical Reasoning

Patterns in Shapes

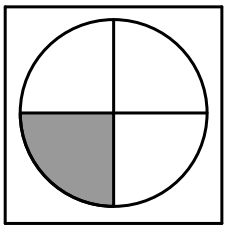
1 Observe the pattern in the shapes. What is the 6^{th} shape?



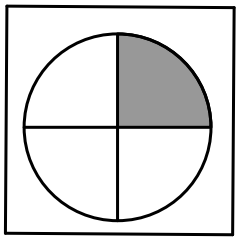
(1)

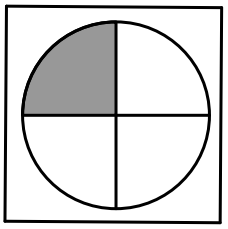


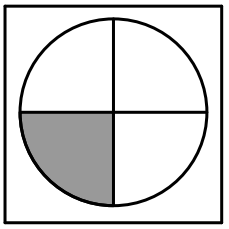
(2)



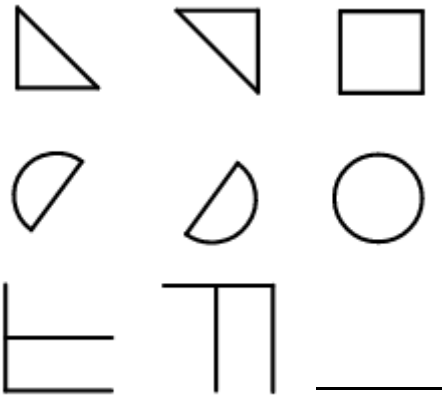
(3)

A. 

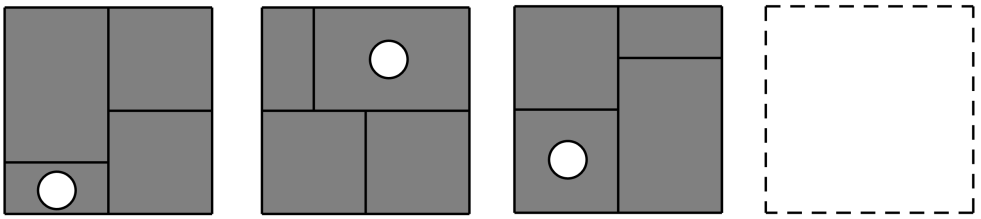
B. 

C. 

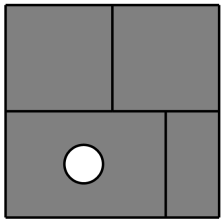
2 According to the pattern, draw the figure in the blank.



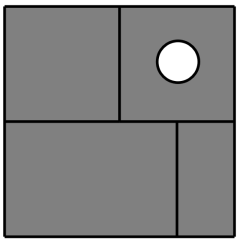
3 According to the pattern, which of the following should be in the blank?



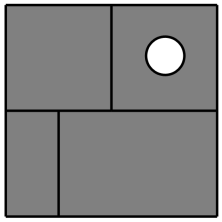
A.



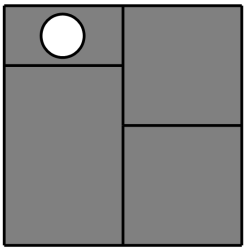
B.



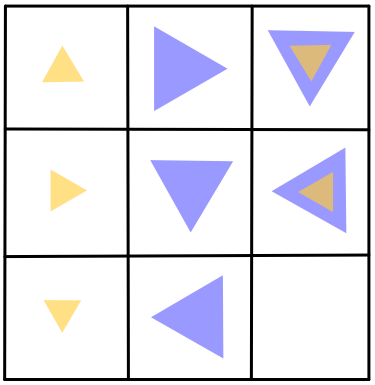
C.



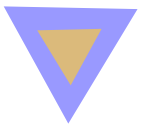
D.



4 Find the pattern and choose the figure in the blank square.



A.



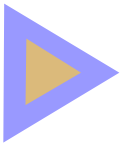
B.



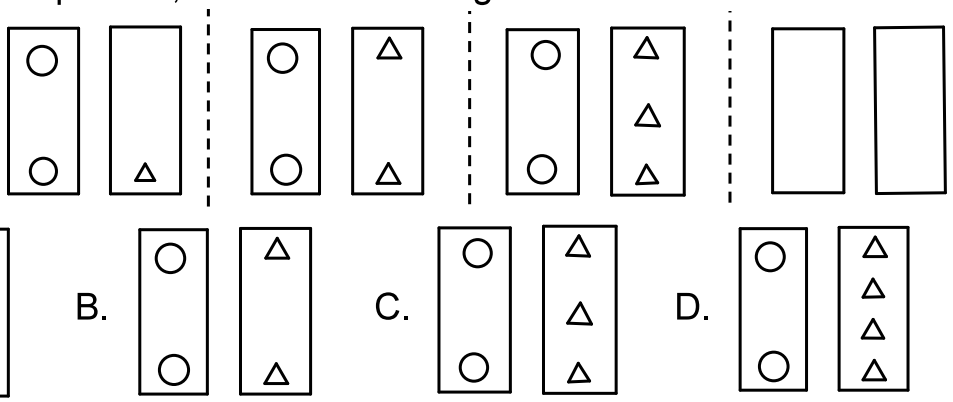
C.

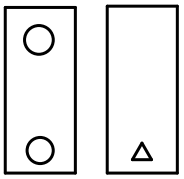


D.



5 According to the pattern, choose the last figure.



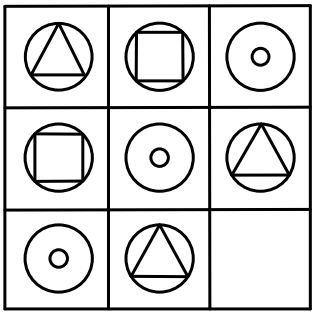
A. 

B.

C.

D.

6 Which is the right figure in the blank?

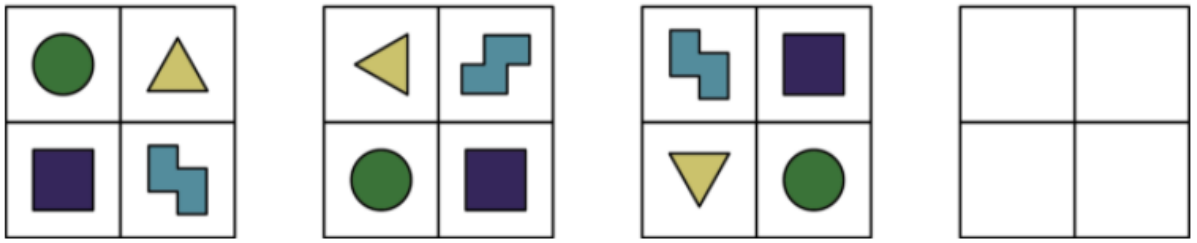


A. 

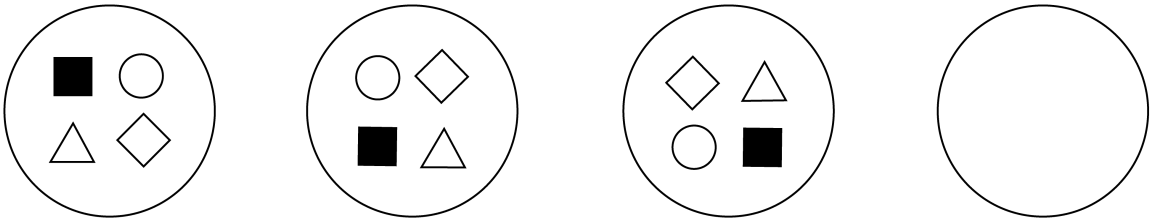
B. 

C. 

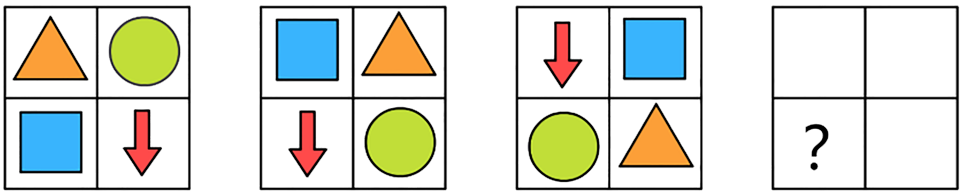
7 According to the pattern, draw the figures in the blanks.



8 According to the pattern, complete the last figure.



9 According to the pattern below, which shape should be in the square with the question mark in the next figure?



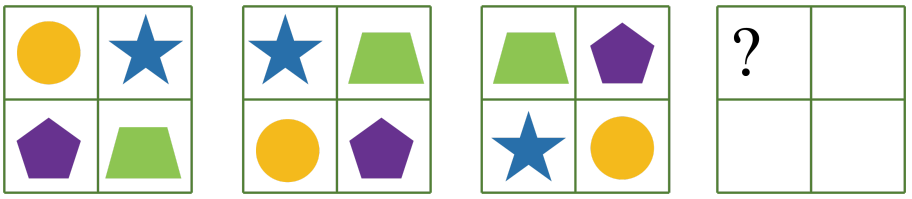
A. 

B. 

C. 

D. 

10 According to the pattern below, which shape should be in the blank with the question mark in the next figure?



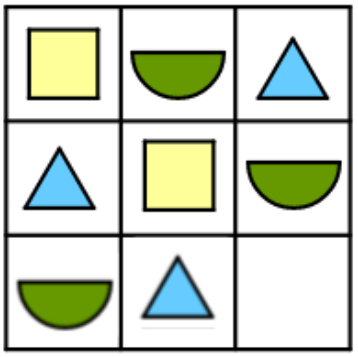
A. 

B. 

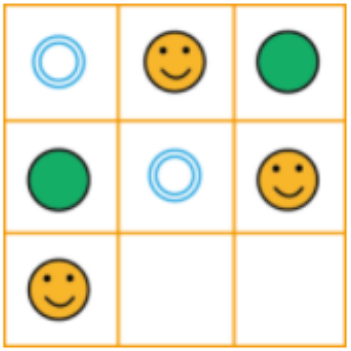
C. 

D. 

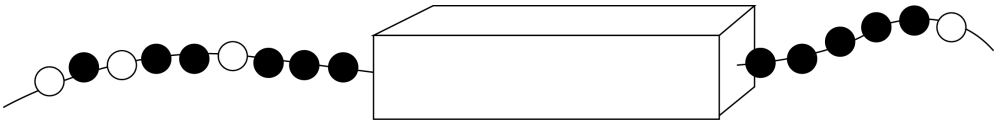
11 According to the pattern, draw the figure in the blank.



12 According to the pattern, draw the figures in the blanks.

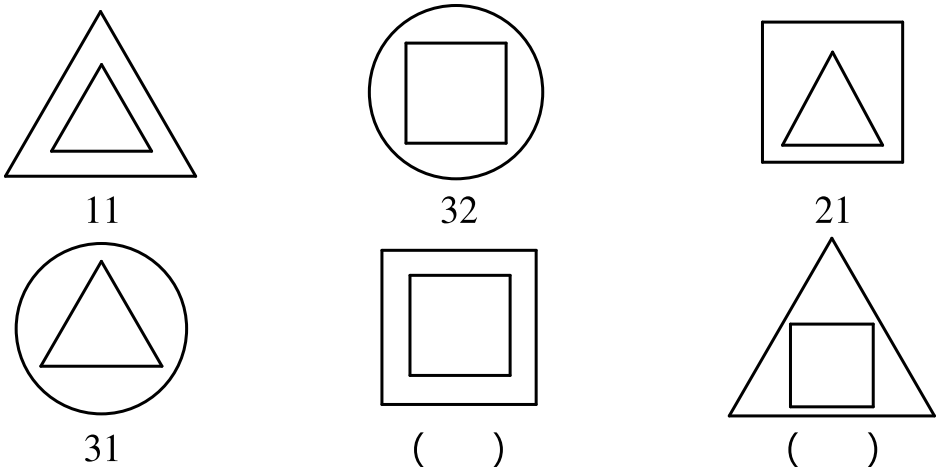


13 There are _____ white beads and _____ black beads in the box.



A. 2;4 B. 3;5 C. 2;2 D. 4;4

14 According to the pattern below, what is the number for the last two graphs?



A. 22 ; 12 B. 12 ; 22 C. 21 ; 22 D. 23 ; 32

Equal and Balance

1 Fill in the blanks. (The same shape represents the same number, and different shapes represent different numbers.)

△ + △ = 18

☆ + ○ = 13

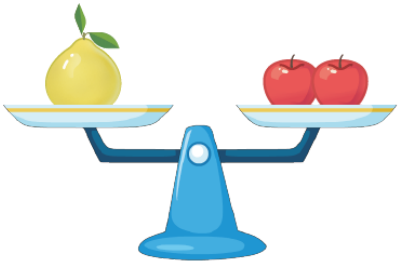
△ + ○ = 15

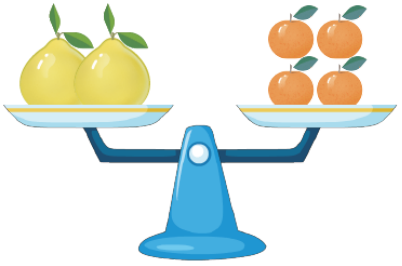
△ = ( )

○ = ( )

☆ = ( )

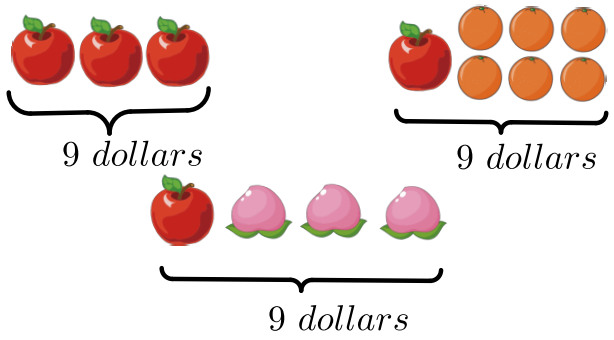
2 Observe the scales. _____ apple(s) weigh the same as an orange.







3

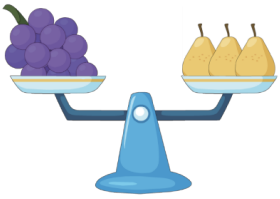


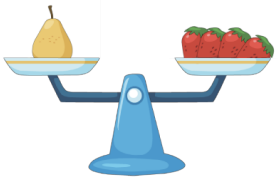
 = _____ dollar(s)

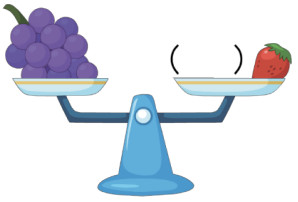
 = _____ dollar(s)

 = _____ dollar(s)

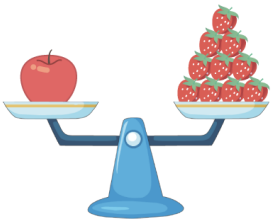
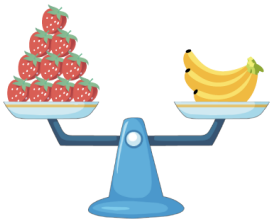
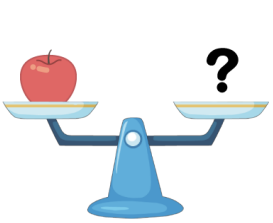
4 Observe the scales. _____ strawberries weigh the same as a bunch of grapes.



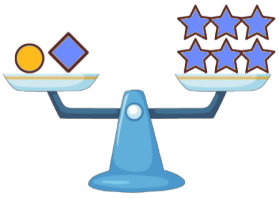


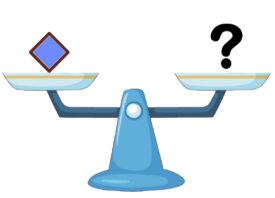


5 Observe the scales. _____ bananas weigh the same as an apple.

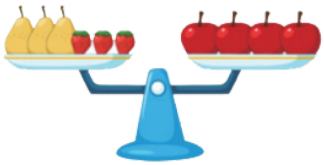
6 Observe the scales. Which of the following weigh the same as a diamond shape.





A. 
B. 
C. 
D. 

7 Fill in the blank with the appropriate number.



①

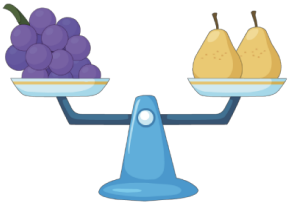


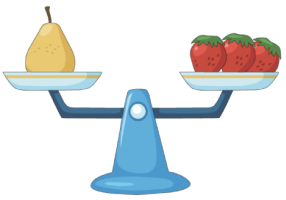
②

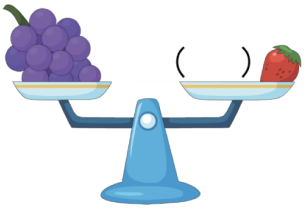


③

8 Observe the scales. _____ strawberries weigh the same as a bunch of grapes.







9 (1) △ = ○ ○

○ = ☆☆☆☆

△ = ____ ☆

(2) □□ = ☆☆☆☆☆☆

△ = □□□

△ = ____ ☆

10 Fill in the blanks! (The same animal represents the same number, and the different animals represent different numbers.)



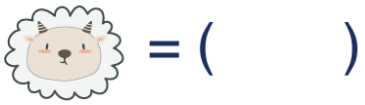




11 Find the number each animal represents below! (The same animal represents the same number, and different animals represent different numbers.)

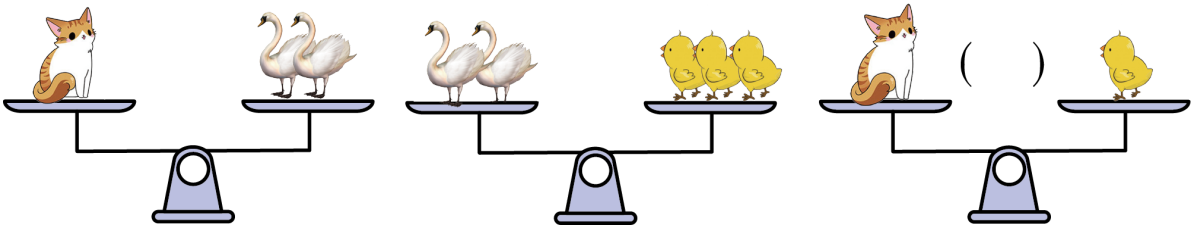




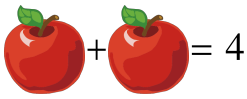




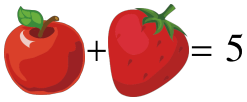
12 Observe the scales. _____ chicks weigh the same as a cat.

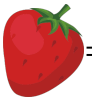


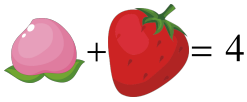
13 Fill in the blanks! (The same fruit represents the same number, and the different fruits represent different numbers.)


= 4


= _____


= 5


= _____


= 4


= _____

14 Fill in the blank with the appropriate number.

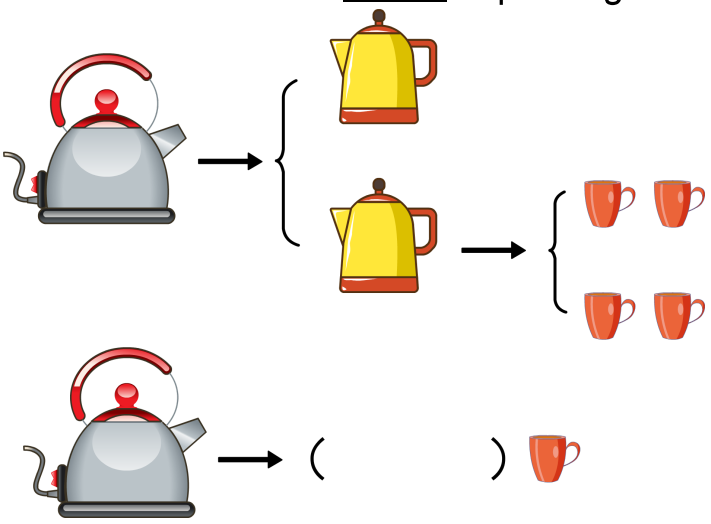








15 Observe the scales. _____ cups weigh the same as a kettle.



( ) cup

16 Fill in the blanks. (The same shape represents the same number, and different shapes represent different numbers.)

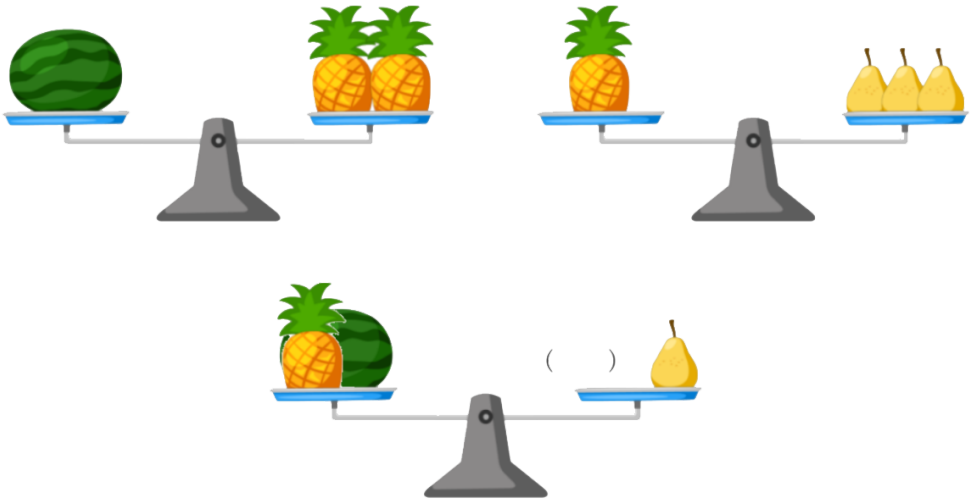
□ + □ + △ + △ = 14

△ + △ + □ = 10

△ = ( )

□ = ( )

17 Fill in the blank with the appropriate number.



18 Fill in the blanks.

(1) ● − ■ =9

6+ ■ =8

● = ( )

■ = ( )

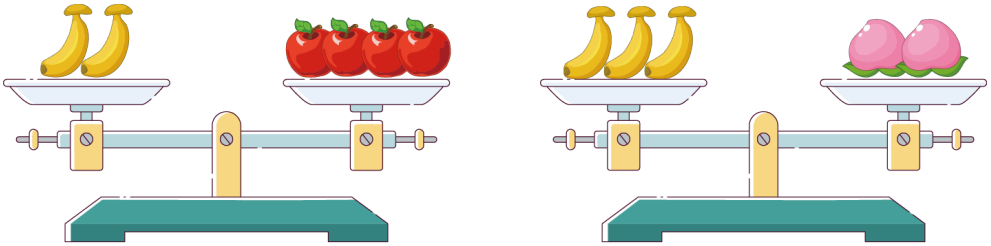
(2) ★ + ★ =8

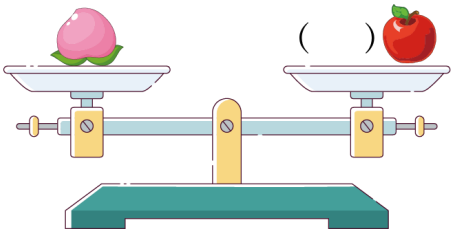
▲ + ★ =9

★ = ( )

▲ = ( )

19 How many apples weigh the same as a peach? Fill the number in the blank.



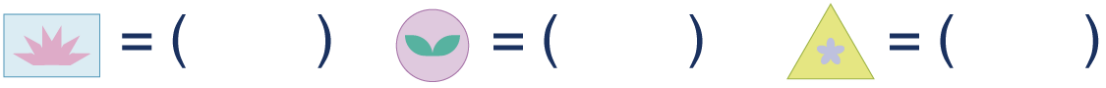


20 Fill in the blanks. (The same shape represents the same number, and different shapes represent different numbers.)

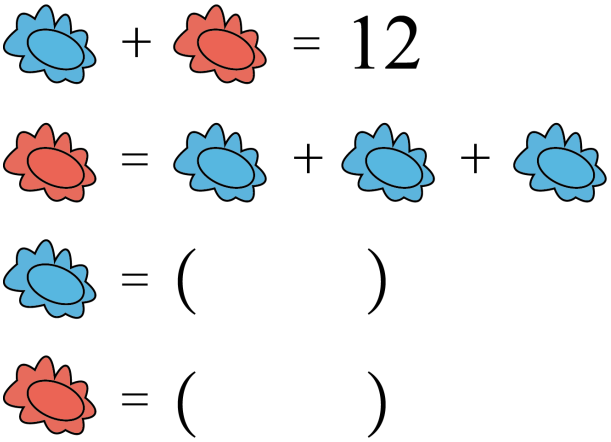




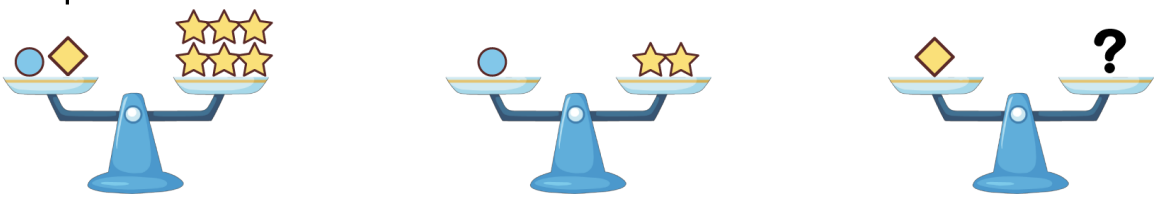




21 Fill in the blanks.



22 Observe the scales. Which of the following weigh the same as a diamond shape ?



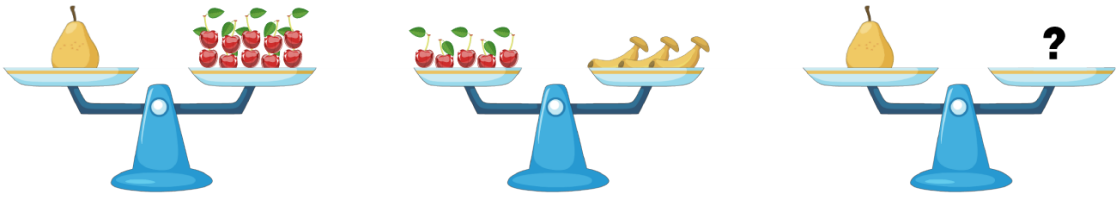
A. 

B. 

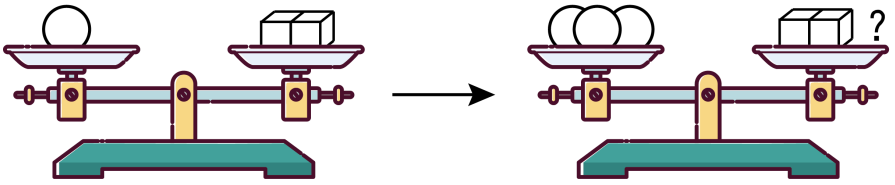
C. 

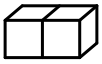
D. 

23 Observe the scales. _____ bananas weigh the same as a pear.

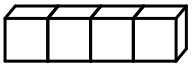


24 What should be put in "?" to keep balance?



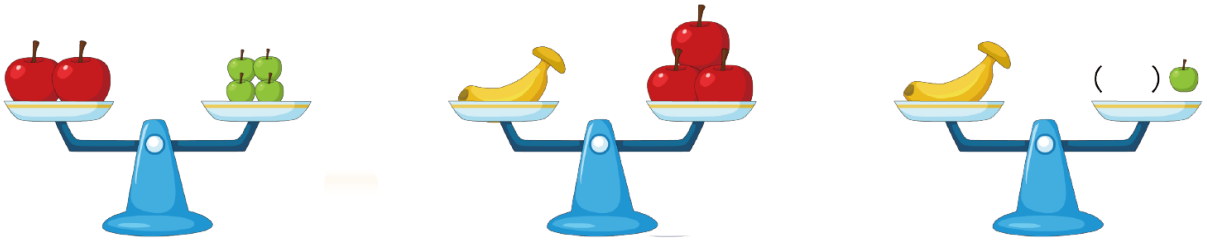
A. 

B. 

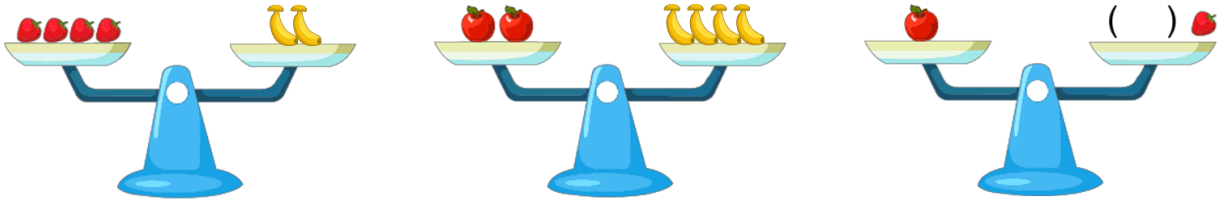
C. 

D. 

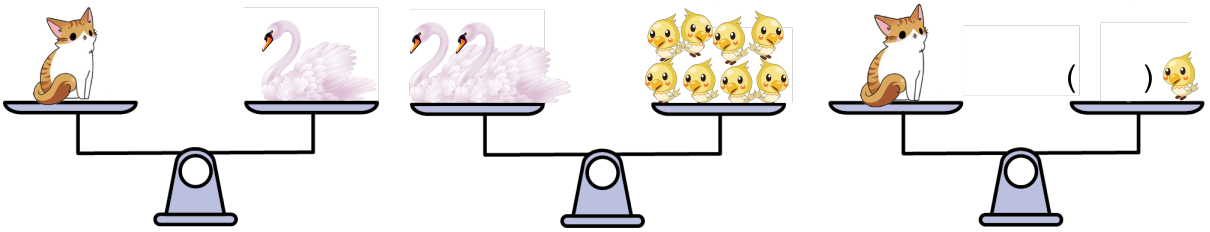
25 1 banana = _____ green apples.



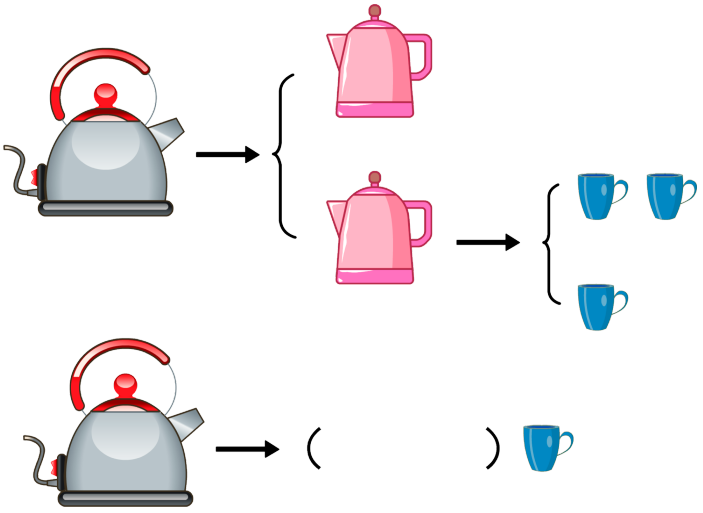
26 How many strawberries weigh the same as an apple? Fill the number in the blank. _____



27 Observe the scales. _____ chicks weigh the same as a cat.



28 Observe the scales. _____ cups weigh the same as a kettle.



NOTE



Measurement

Time and Clock

1 Fill in the blanks.

5 : 25 → 2 hr 17 min later → _____

_____ ← 4 hr 40 min before ← 10 : 55

2 Fill in the blanks.

6 : 45 → _____ hr _____ min later → 11 : 50

3 Daisy was invited to her friend's birthday party. Right now, it is 10 : 20 a.m.. She arrived at the party an hour and a half ago. The trip was 25 minutes long for Daisy to depart from her home toward the party.

(1) When did Daisy arrive at the party?

(2) When did Daisy depart toward the party?



4 The clock now shows the time when Bob arrives at the library. He left home two and a half hours ago. When did he leave home?



A. 8 : 30 B. 9 : 00 C. 9 : 30 D. 10 : 00

5 The clock shows the time now. 45 minutes later, the time will be _____ .



A. 7 : 45 B. 8 : 00 C. 9 : 00 D. 9 : 15

6 The clock shows the time now. 40 minutes later, the time will be _____ .



A. 2 : 50 B. 3 : 30 C. 4 : 10 D. 5 : 10

7 Mark planned to visit his grandparents. Right now, it is $8:00$. He arrived 2 hours and 30 minutes ago. The trip was 45 minutes long.

(1) What time did Mark arrive at his grandparents' home?

(2) What time did Mark depart toward his grandparents' home?

Money Calculation

1 Each bottle of coke costs 3 dollars in the supermarket and 4 dollars at McDonald's. Bob can buy _____ bottles of coke in the supermarket with 12 dollars and can buy _____ bottles of coke at McDonald's with 12 dollars.

2 Helen is shopping at a stationery. At most, how many items could she get with 18 dollars? (She can only buy one of each items.)



19 dollars



12 dollars



7 dollars



5 dollars



3 dollars



2 dollars



1 dollar

3 Jerry is going to buy some fruits at a fruit store. At most, how many kinds of fruits could he buy with 24 dollars at most? (He can only buy one kind of fruits once.)


3 dollars

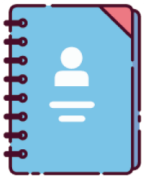

5 dollars


7 dollars


10 dollars


9 dollars

4 Penny has 5 dollars, which two things can she buy? Then how much is left?


3 dollars


2 dollars


1 dollar


4 dollars

5 School needs to buy 6 desks, and each desk's full price is 12 dollars. Currently, there are two sale plans.
(1) Buy desks on full price, but buy 2 getting 1 free.
(2) Buy desks on a discounted price for 7 dollars each.
Which sale plan is better?



A. (1)　　B. (2)

6 Each bunch of roses costs 4 dollars in the market and 6 dollars at the flower shop. Alice can buy _____ bunches of roses in the market with 24 dollars and can buy _____ bunches of roses at the flower shop with 24 dollars.

7 Niko has 20 dollars and he wants to buy 3 bottles of water and 2 bread. Is his money enough? If his money is enough, how much is the change?



2 dollars



6 dollars

8 With 18 dollars, Lily wants to buy those three items. Is her money enough? If not, how much more does she need?



10 dollars



6 dollars



4 dollars

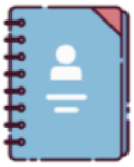
9 Calculate:



25 dollars



15 dollars



3 dollars



18 dollars

(1

(2) How much does it cost to buy a pencil-box and a bar of chocolate.

10



4 dollars



2 dollars



7 dollars

(1) How much are a pineapple and a peach?

(2) How much are a peach and a bunch of bananas?

11 Help Eddie figure out how much the bill takes.



Bill

XX 23 dollars

XX 15 dollars

XX 36 dollars

12

A



5 dollars

B



6 dollars

C

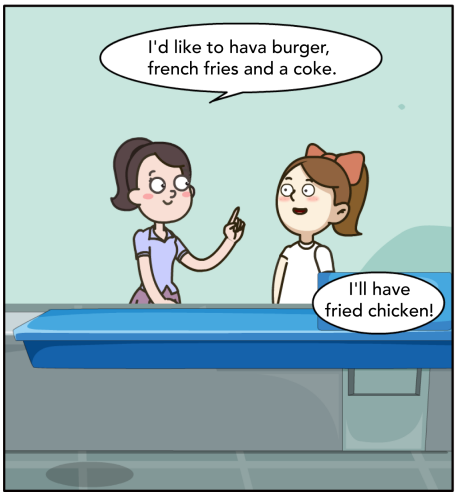


7 dollars

(1) Mr. White bought two same hats and they cost 12 dollars. Which type of hat did he buy?

(2) Amy bought one type A hat and one type C hat. How much did she spend?

13 They have to pay _____ dollars_____ cents.





14


58 dollars


35 dollars


46 dollars

(1) Tim has 27 dollars only, how much more does he need to buy a volleyball?

_____ _____ _____ = _____ dollars

(2) After buying a bag, Nina still has 54 dollars. How much did she have in the beginning?

_____ _____ _____ = _____ dollars

15


6 dollars


4 dollars

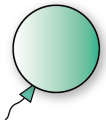

18 dollars


7 dollars

(1) Lucy buys a teddy bear and a doll. How much does she need to pay?

(2) Which is the most expensive toy? Which is the cheapest one? How much is the difference?

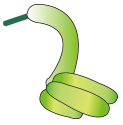
16 The amusement park sells 5 types of balloons at the following prices.


5 dollars


8 dollars


1 dollar

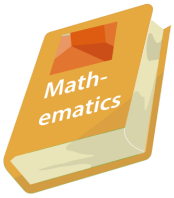

6 dollars


3 dollars

(1) How much do one  and one  cost?

(2) How much cheaper is  than  ?

17 Lucy wants to buy the following textbooks with 35 dollars. Does she have enough money for all four kinds of textbook? If not, how much more does she need?



Mathematics 12 dollars



English 14 dollars



Science 8 dollars



Art 7 dollars

NOTE



Crazy Math

MK Level 1–2

1 In a zoo, there are three monkeys. The monkeys are all younger than 5 years old. None of them has the same age, and all their ages are whole numbers. The product of their ages is 8. What is the sum of their ages?

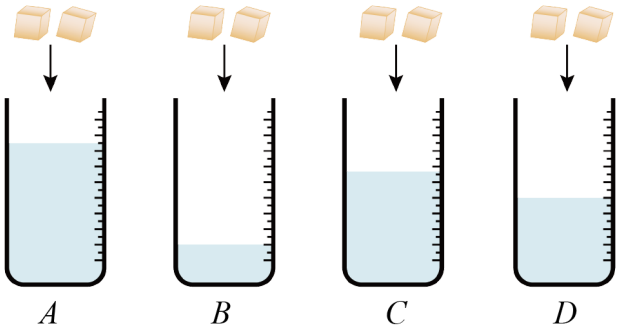
A. 4 B. 6 C. 7 D. 8

2 There are some kids exercising in the park. Little kangaroo takes a photo for half of the kids which is shown below. How many kids are there in the park?



A. 5 B. 6 C. 10 D. 12 E. 14

3 Put 2 same cubes of sugar in each of the cups below. Which cup has the sweetest water?



A. *A*
B. *B*
C. *C*
D. *D*
E. All are the same

4 Lucas wrote some words in code. Different digits represent different letters and the same digit represents the same letter. For example, the word BALL was coded as 1233. One of the words below was coded as 49946758. Which one is the right word?

A. *SCISSORS*
B. *ALPHABET*
C. *CHECKERS*
D. *CHILDREN*
E. *OPPOSITE*

5 In an archery contest, Mira got 28 points on the first round, as shown in the left target below. On the second round, she got 12 points, as shown in the middle target. How many points did she get on the third round?

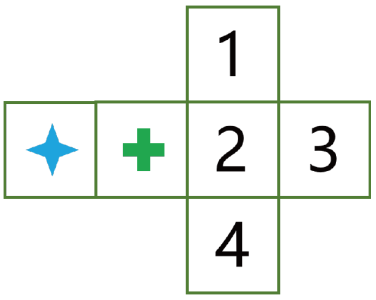


A. 16 B. 18 C. 20 D. 22 E. 24

6 Candy, Justin, David and Ivy were buying some apples together. Candy bought fewer apples than Ivy, and Justin bought fewer apples than Candy. Ivy was not the one who bought the most, but what she bought was more than that of two people. Who bought the least apples?

A. Candy
B. Justin
C. David
D. Ivy
E. Impossible to determine.

7 The figure below is the net of  . Which position should the  be?



A. 1
B. 2
C. 3
D. 4
E. It is impossible to tell

8 Candy lives on the third floor, and Lily lives in the same building but has to walk up three times as many stairs as Candy. There are no stairs to the entrance of the building. On which floor does Lily live? (Adapted from 2000 Math Kangaroo Problem, level3-4 Question #4)

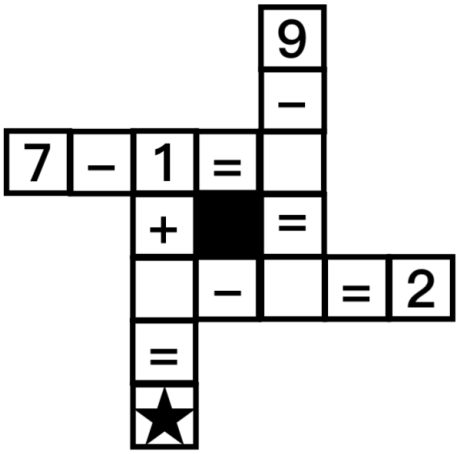
A. on the second floor
B. on the third floor
C. on the fourth floor
D. on the sixth floor
E. on the seventh floor

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9 Today, on January 10, 2022, Mike's cat is 15 days old. When was his cat born?

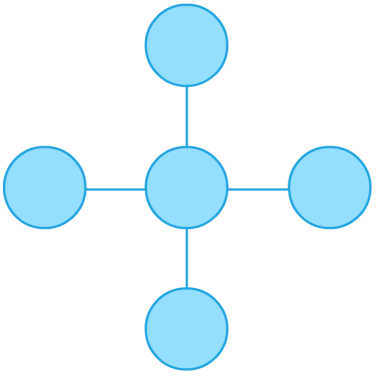
A. on January 1, 2022
B. on December 24, 2022
C. on December 25, 2021
D. on December 26, 2021
E. on December 28, 2021

10 What number should replace the star shape so that all the calculations are completed correctly?



A. 3 B. 4 C. 5 D. 6 E. 7

11 The numbers $1, 2, 3, 6,$ and 7 are written in the circles of the cross below, so that the sum of the numbers in each line is equal to 11. Which number is written in the central circle?



A. 1 B. 2 C. 3 D. 6 E. 7

12 A snail falls down a well unfortunately in the morning. The well has a depth of 15 meters. The snail can climb up 3 meters during the day, but slides down 1 meter during the night. In how many days can the snail get out of the well?



A. 5 B. 6 C. 7 D. 8 E. 9

13 There are 18 trees on one side of a straight road. The first tree is at the start of the road, and the last tree is at the end of the road. The distance between each tree is 3 meters. How long is the road? (Ignore the thickness of the trees.)

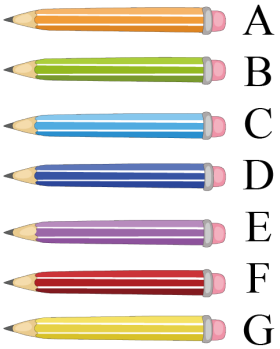
A. 48 meters B. 51 meters C. 54 meters D. 55 meters E. 66 meters

14 Some students are standing in a line. Counting from the front of the line, Peter is the 19^{th} student. Counting from the back of the line, Bill is the 28^{th} student. Bill is the fourth person standing in front of Peter. How many students are standing in the line in total?

A. 32 B. 43 C. 42 D. 33 E. 40

15 Which pencil is at the very bottom?



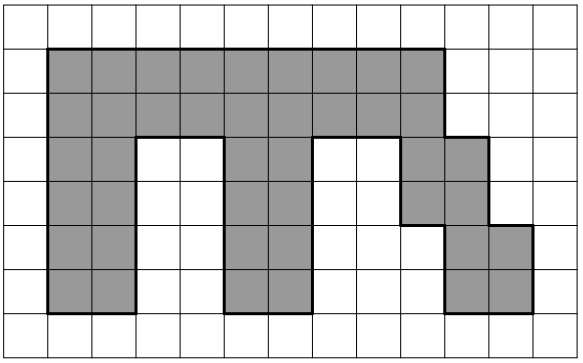


A. B B. G C. F D. C E. E

16 A singing lesson lasts 50 minutes, and it started at 10 : 40. Lucy was late and came to class exactly half way through. What time did Lucy come to the class?

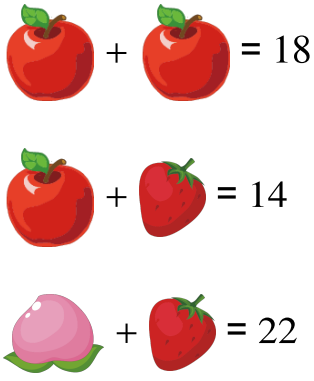
A. 11 : 30 B. 11 : 05 C. 11 : 25 D. 10 : 15 E. 9 : 50

17 The side length of each small square is 1 in figure below. What is the perimeter of the shaded part?



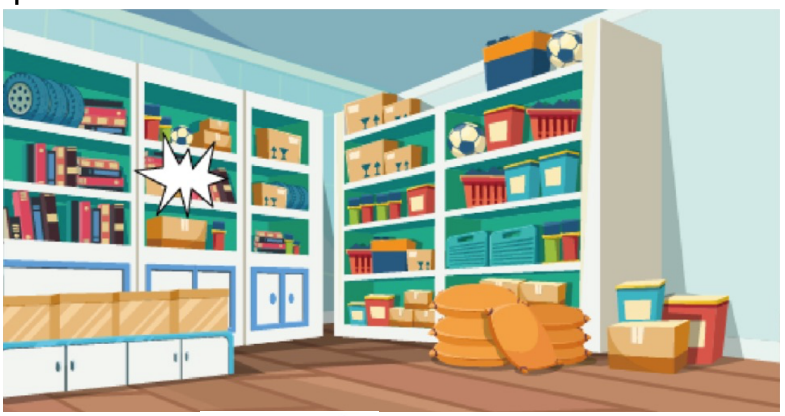
A. 42 B. 50 C. 84 D. 23 E. 100

18 The same fruit represents the same number, and different fruits represent different numbers. What number does the peach represent according to the equations below?



A. 8 B. 9 C. 16 D. 17 E. 19

19 Which piece completes the picture?



A. 

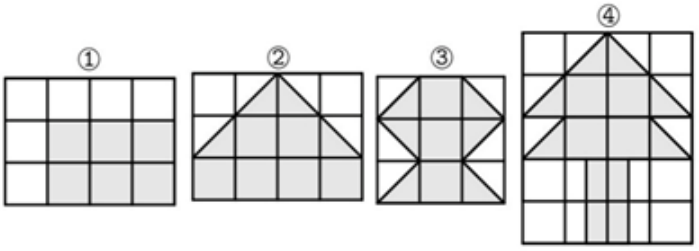
B. 

C. 

D. 

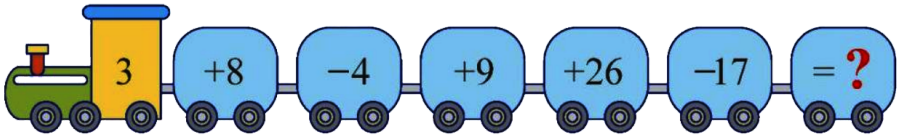
E. Impossible to determine.

20 Which of the following figures has the largest shaded part?



A. ①
B. ②
C. ③
D. ④
E. Impossible to determine.

21 What number should be written on the last carriage?

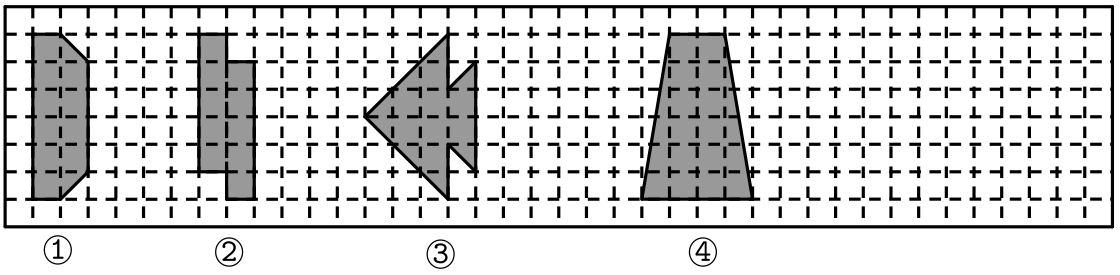


A. 35 B. 25 C. 42 D. 15 E. 22

22 John watches 3 episodes of cartoon, each 40 minutes long, from 1 P.M. After each episode, he will take a 10-minute break. When will he finish all 3 episodes?

A. 2 : 20 P.M. B. 3 : 00 P.M. C. 3 : 10 P.M.
D. 3 : 20 P.M. E. 3 : 30 P.M.

23 Which of the following figures has the largest shaded area?

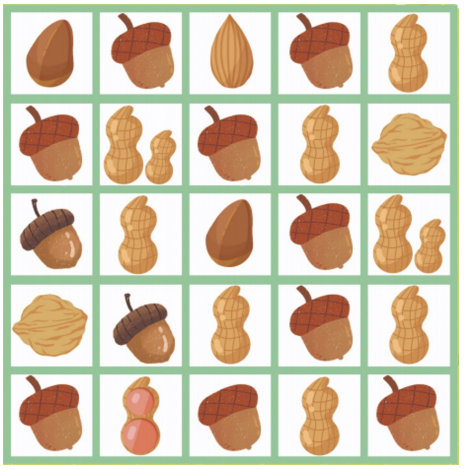


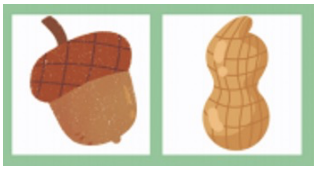
A. ①
B. ②
C. ③
D. ④
E. They have the same area.

24 Nick has 83 books and Steven has 140 books. Starting tomorrow, Nick will buy 8 books and Steven will buy 5 books every day. How many days later will they have the same number of books?

A. 100 B. 19 C. 32 D. 20 E. Never

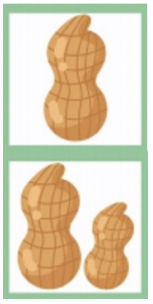
25 Which of the following pieces we cannot find in the picture below?

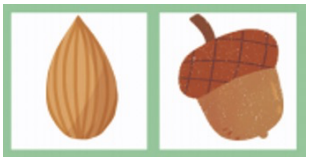


A. 

B. 

C. 

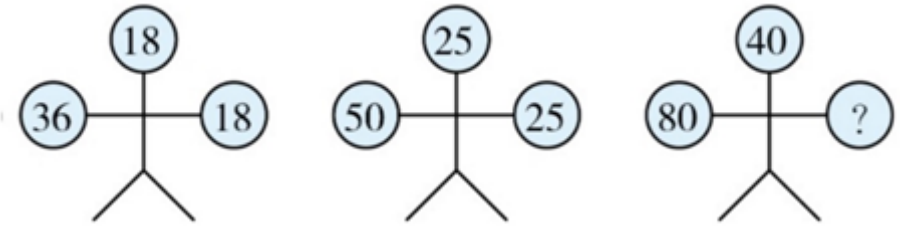
D. 

E. 

26 In G1 class, the number of girls is 13 more than that of boys. The number of boys is half the number of girls. How many students are there in the class?

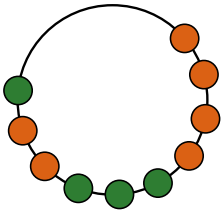
A. 26 B. 30 C. 33 D. 39 E. 40

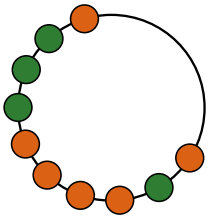
27 What number needs to be written in the cell with the question mark?

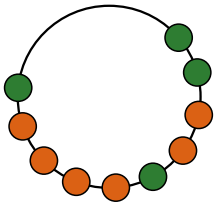


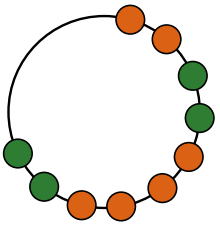
A. 25 B. 28 C. 40 D. 45 E. 59

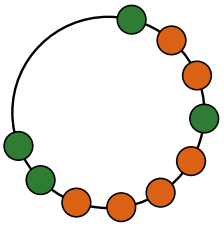
28 Which of the following bracelets is different from others?

A. 

B. 

C. 

D. 

E. 

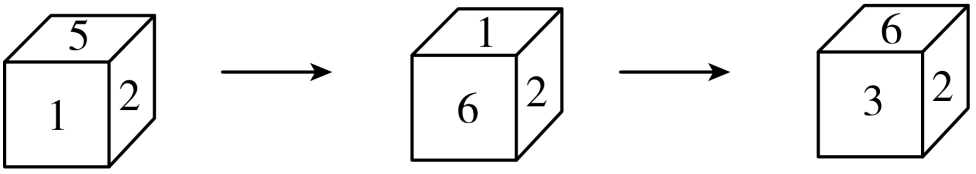
29 A barrel of oil weighs 18 kg (weight of the barrel and the oil). After half of the oil is used, the barrel of oil weighs 10 kg (weight of the barrel and the oil). How many kilograms does the oil weigh without the barrel originally?

A. 17 B. 15 C. 16 D. 14 E. 13

30 James wants to take a bus to visit her grandfather. The bus arrives at the station every 30 minutes. James arrives at the bus station at 7 : 00 A.M., while the bus just leaved the station at 6 : 50 A.M. How long will James wait for the next bus?

A. 10 min B. 15 min C. 20 min D. 25 min E. 30 min

31 Mike writes the numbers 1 to 6 on the faces of a cube. The pictures below show the cube in three positions. Which number is on the face opposite the number 2?



A. 1 B. 2 C. 4 D. 3 E. 5

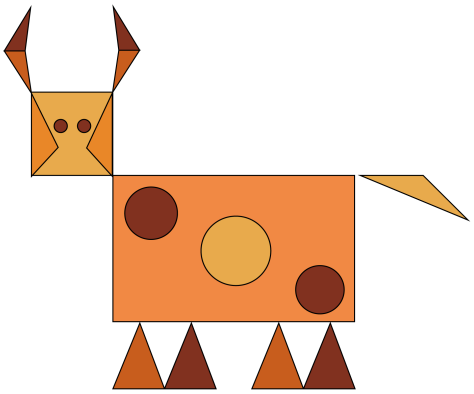
32 Cathie and Dennis are lining up to buy donuts. Cathie is the 13^{th} person counting from the front, and Dennis is the 14^{th} person counting from the back. There are 6 people counting from Cathie to Dennis. Cathie is in front of Dennis. How many people are lining up?

A. 27 B. 33 C. 32 D. 31 E. 34

33 Cindy and Jack are good friends. The sum of their ages this year is 46. What was the sum of their ages 7 years ago?

A. 53 B. 60 C. 39 D. 32 E. 28

34 Lisa uses some colored cards of different shapes to form a cattle as shown below. How many triangular cards can you find in the cattle?



A. 8 B. 9 C. 10 D. 11 E. 13

35 In two days, Jason walked 41 kilometers. On the second day, he walked 4 kilometers less than 4 times as far as he did on the first day. How many kilometers did he walk on the second day?

A. 26 B. 28 C. 30 D. 32 E. 34

36 Observe and find the pattern below. What is the difference between the number of shaded squares and white squares in Figure 6?

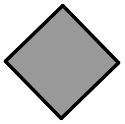


Figure 1

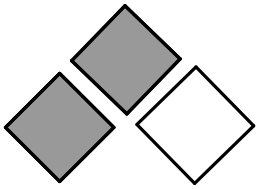


Figure 2

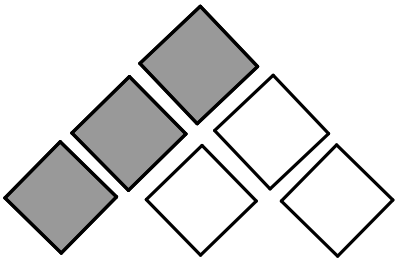
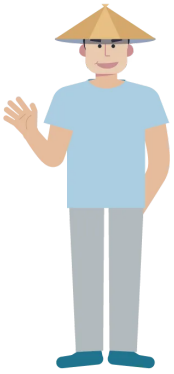


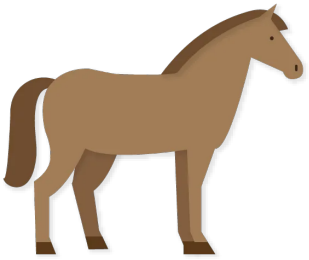
Figure 3

A. 21 B. 11 C. 9 D. 6 E. 5

37 A carriage was driven by a horse and a carter, and there were two passengers in the carriage. Each passenger had one cage where there were two cats. How many legs were there in total?



Carter



Horse



Cat

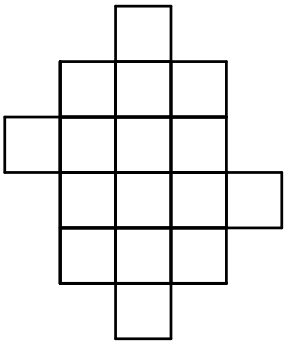
A. 16 B. 26 C. 20 D. 24 E. 28

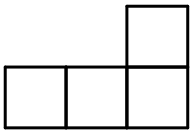
38 Ella puts four kinds of fruits which are an apple, an orange, a grape and a pear in four cubbies as described:
The apple is right below the orange.
The grape is to the right of the orange.
What is in the bottom-right corner?

A. Pear
B. Orange
C. Grape
D. Apple
E. It is impossible to tell.

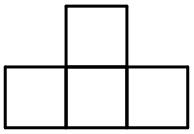


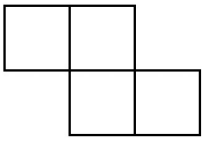
39 Cut the shape below along the lines to get 4 identical pieces. What does each piece look like?

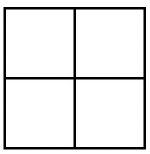


A. 

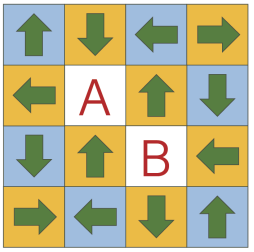
B. 

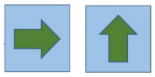
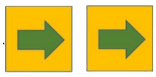
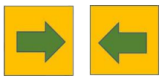
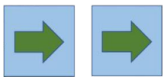
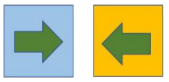
C. 

D. 

E. 

40 Observe the figure below and find the pattern. What should be put in square A and B, respectively?



A. 
B. 
C. 
D. 
E. 

41 There are _____ rectangles in the grid in which the result is 24.

$16 + 8$	2×12	8×3
3×6	$30 - 16$	$72 - 48$

A. 6 B. 2 C. 3 D. 4 E. 5

42 Cathie made a new friend, Victoria. She tries to find her birthday, and asks her:

"Were you born on May 14^{th}, 2002?"

"Were you born on May 15^{th}, 2001?"

"Were you born on June 15^{th}, 2002?"

Each time exactly one of the day, the month, and the year is right.

When was Victoria born?

A. June 14^{th}, 2002

B. May 15^{th}, 2002

C. June 14^{th}, 2001

D. May 14^{th}, 2001

E. June 15^{th}, 2001

43 Redhand and Greenhand produce 17 machine parts in total. The number of parts produced by Redhand is 1 more than three times that of the Greenhand. How many parts does Redhand produce?

A. 18 B. 13 C. 9 D. 6 E. 4

44 Which two balls should be exchanged so that the numbers on two plates have the same sums?

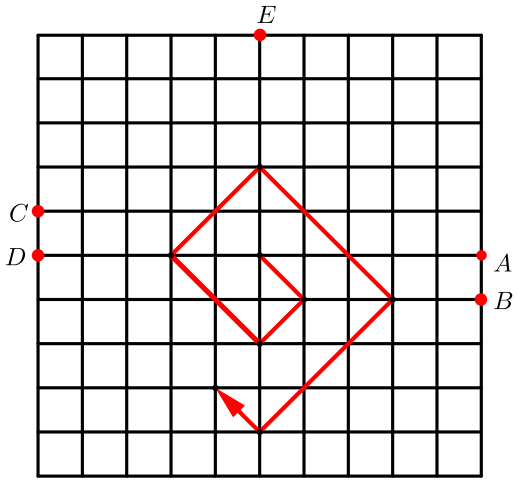


A. 3 and 6 B. 3 and 5 C. 1 and 7 D. 2 and 7 E. 1 and 6

45 It is Friday today. Mia's birthday was ten days ago. On what day of the week was Mia's birthday?

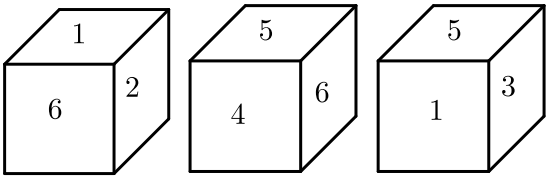
A. Monday B. Tuesday C. Wednesday
D. Thursday E. Friday

46 Jerry is in the center of the grids below, and he wants to get out from it following the pattern of the red path. Which point will be the exit for Jerry?



A. A B. B C. C D. D E. E

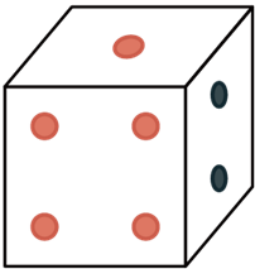
47 On each of six faces of a cube, there is one of six numbers: 1, 2, 3, 4, 5, and 6. On each face there is a different number. In the picture we can see the cube shown in three different positions. Which number is on the face opposite the face with 4?



A. 1 B. 2 C. 3 D. 5 E. 6

48 Joann wants to play with the die. She rolls the die 2 times as shown below.





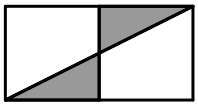
Which number is on the opposite face of number 4?

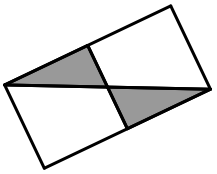
A. 2 B. 3 C. 1 D. 6 E. 5

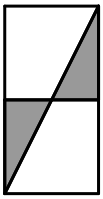
49 Lesi, Hilla, Daisy, Neil, and Timmons are climbing a mountain. Neil arrives at the top before Daisy and Timmons, and Timmons reaches the top right after Neil. There are two people arriving at the top after Lesi and before Daisy. We already know that Lesi is not the first one. Who is the first one reaching the top of the mountain?

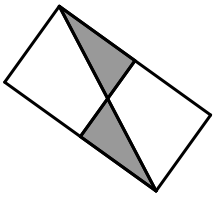
A. Lesi B. Hilla C. Daisy D. Neil E. Timmons

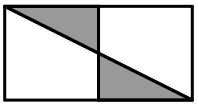
50 Which of the following figures is different from the other ones?

A. 

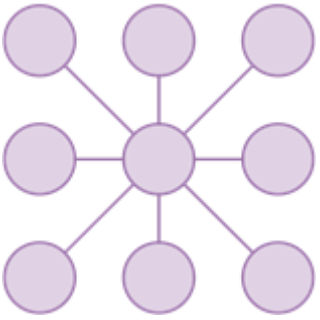
B. 

C. 

D. 

E. 

51 Fill the numbers $7, 9, 11, 13, 15, 17, 19, 21$ and 23 into the circles below, so that the sum of the three numbers in each line is equal to 51. (Each number can be used only once.) What number is in the central circle?



A. 7 B. 13 C. 15 D. 21 E. 23

52 What number should be in the blank with question mark?

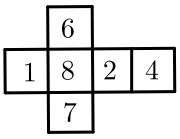


A. 27 B. 163 C. 7 D. 1 E. 19

53 Three pirates, Jack, Cooker, and Sia are dividing 50 coins. Cooker says: the coins I get are 6 more than Jack and 20 fewer than Sia. How many coins does Sia get?



A. 6 B. 12 C. 32 D. 30 E. 36

54 Make a  with 

. What is the number on the opposite face of "2"?

A. 6 B. 4 C. 2 D. 1 E. 7

55 Eddie had 72 apples. He divided all the apples equally among each of his friends. Which of the following was definitely not the number of his friends?

A. 3 B. 4 C. 19 D. 36 E. 9

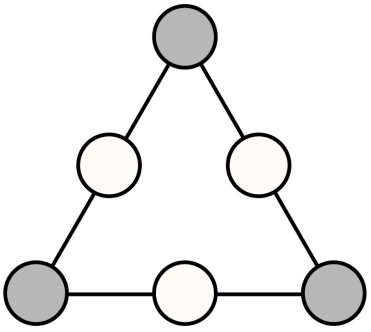
56 There are 7 girls standing in a line. Then, some boys join the line and there are 3 boys standing between every two adjacent girls. How many boys are there?

A. 7 B. 6 C. 12 D. 18 E. 20

57 Cecilia made 23 muffins. She decorated 13 muffins with chocolate and then 15 muffins with blueberries. How many muffins were decorated with both chocolate and blueberries at least?

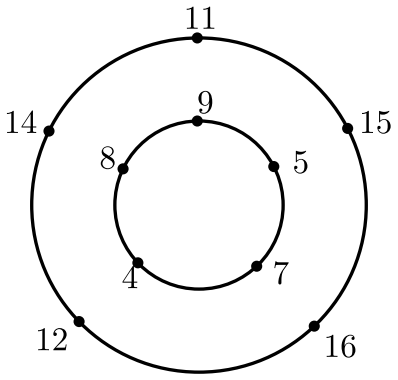
A. 3 B. 4 C. 5 D. 6 E. 7

58 Fill the numbers 1~6 in the circles, so that the sum of three circles in each line is 12. What is the sum of numbers in the shaded circles?



A. 4 B. 6 C. 3 D. 10 E. 15

59 There is a special code lock with two rings that can be rotated clockwise or counterclockwise. When the difference between every outer number and inner number is the same, it will unlock. What is the inner number for 11 when the code lock unlocks?



A. 8 B. 9 C. 5 D. 7 E. 4

60 According to the pattern, what letters should be in the third row from left to right?

H	K	Q	Y
Y	H	K	Q
K	Q	Y	H

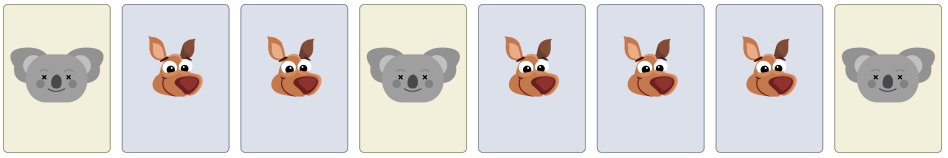
A. H, K, Q, Y B. K, Q, H, Y C. Q, Y, H, K D. Q, K, H, Y E. Q, Y, K, H

61 How many blue dots are covered by the box?



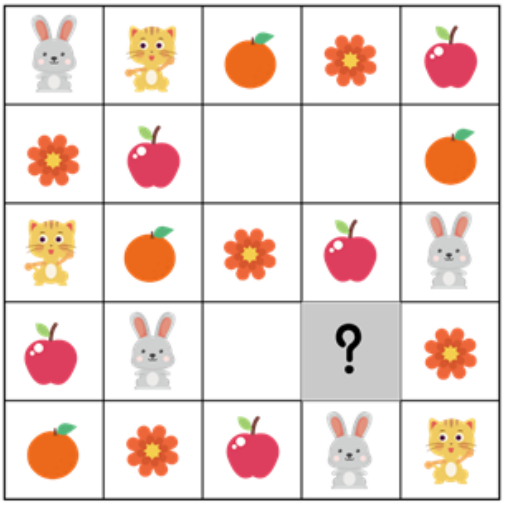
A. 22 B. 24 C. 26 D. 28 E. 30

62 There are 8 cards with either a kangaroo or a koala on it. We can only switch two adjacent cards at each time. How many times at least are needed to make three koala cards together?



A. 3 B. 4 C. 5 D. 6 E. 8

63 Rose fills the grids with these five figures:  , and  . Each figure appears exactly once in every column and every row. Which figure should Rose put in the cell with the question mark? (Adapted from 2018 Math Kangaroo Problem, level 3-4, Question #10)



A. 

B. 

C. 

D. 

E. 

64 Henry, Ola, Charles, and Jimmy had a running race. The person who ran the fastest won. Jimmy ran faster than Ola, and Charles ran slower than Henry. We know that Jimmy did not win the race. Who ran the fast?

A. Henry
B. Ola
C. Charles
D. Jimmy
E. This cannot be determined

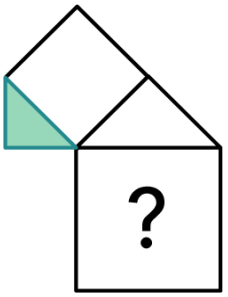
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NOTE



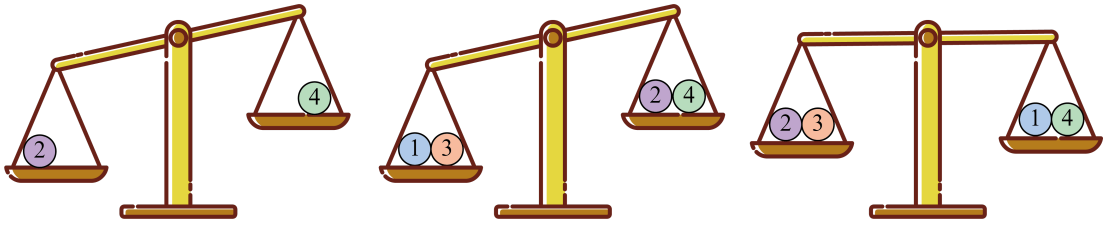
Think Cup

1 The square with the question mark can be formed by _____ green triangles below.



A. 4 B. 6 C. 8 D. 10 E. 12

2 Which ball is the heaviest?

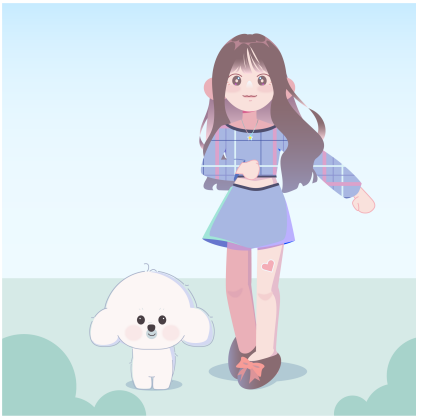


A. ①
B. ②
C. ③
D. ④
E. Impossible to determine

3 Summer has some nuts and wants to divide them equally to 5 kids. Everyone can get 7 nuts at most. How many nuts does Summer have at most?

A. 34 B. 35 C. 30 D. 39 E. 40

4 Nini and her puppy, Buni, are having a walk along a street with trees on one side. The distance between two adjacent trees is the same, and the width of trees can be ignored. Nini and Buni start walking from the first tree at the same time. After 12 minutes, Nini arrives at the 4^{th} tree, and Buni arrives at the 7^{th} tree. When Nini walks to the 16^{th} tree, which tree does Buni arrive at?



A. The 31^{st} tree. B. The 30^{th} tree. C. The 29^{th} tree.

D. The 28^{th} tree. E. The 27^{th} tree.

5 The largest one-digit number is _____ , and the least two-digit number is _____ .

A. 1; 10 B. 9; 10 C. 9; 99 D. 10; 9 E. 10; 1

6 Which number is represented by the last carrot?



A. 9 B. 6 C. 3 D. 1 E. 0

7 Qing made a collage of a blonde lady with only 7 cards as shown below. The cards are numbered 1 to 7 respectively on one side, and each card is marked with M, A, T, H, F, U, or N on the other side.
Qing left following clues below. Can you find the three-digit number represented by FUN?
(1) N overlaps with H and U.
(2) A overlaps with M, T, F, and U.
(3) M overlaps with only two cards.
(4) T overlaps with M, A, and H.

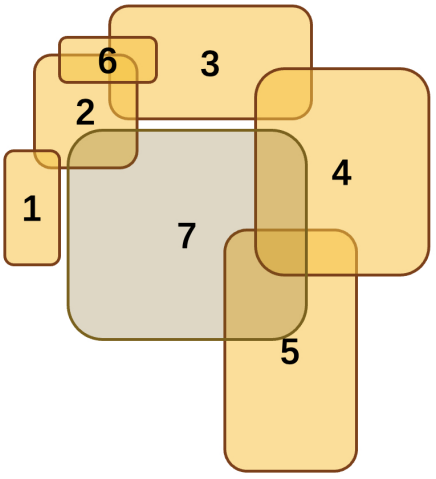
A. 127

B. 153

C. 175

D. 137

E. 573



8 The same shape represents the same number, and different shapes represent different numbers.
◯ = △ + △

◯ + △ + △ = 44

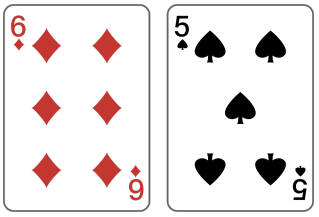
Then, ◯ = _____ .

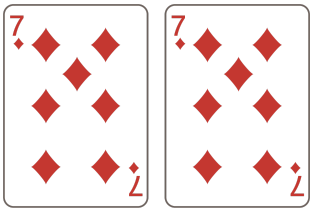
A. 22 B. 12 C. 6 D. 5 E. 4

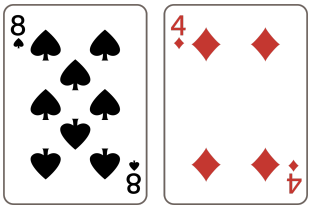
9 _____ is formed by 1 ten and 7 ones.

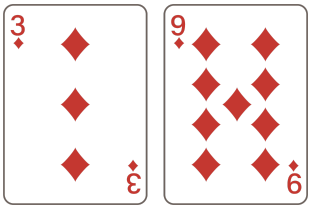
A. 177 B. 107 C. 17 D. 71 E. 10

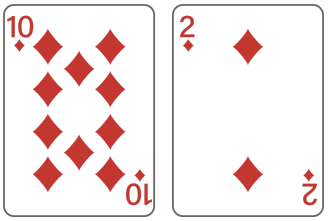
10 Multiply the numbers on each pair of cards. Which of the followings has the largest result?

A. 

B. 

C. 

D. 

E. 

11 In the following column addition, A, B, and C each stands for a digit. Find the value of $A + B + C$.

$$\begin{array}{cccc} & 9 & 9 & \boxed{C} \\ & 9 & \boxed{B} & 9 \\ + & \boxed{A} & 1 & 6 \\ \hline 2 & 0 & 2 & 0 \end{array}$$

A. 4 B. 6 C. 7 D. 10 E. 0

12 Kate has some shapes which are the same as Figure 1, and then she puts them on a table in the way as shown in Figure 2. How many shapes does she use in total?

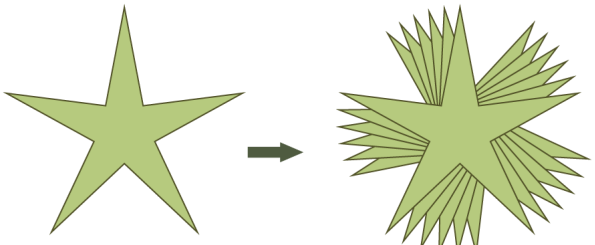
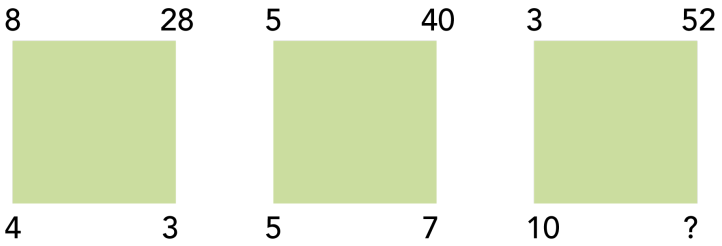


Figure 1 Figure 2

A. 36 B. 30 C. 18 D. 12 E. 6

13 Observe and find the pattern in figures below. What is the missing number?



A. 15 B. 14 C. 12 D. 10 E. 7

14 Which two of the solid figures in Figure 1 can form Figure 2?

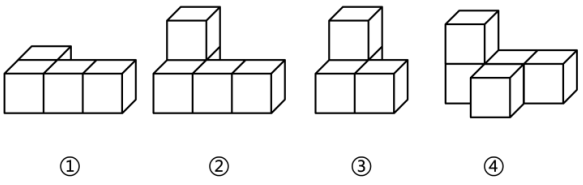


Figure 1

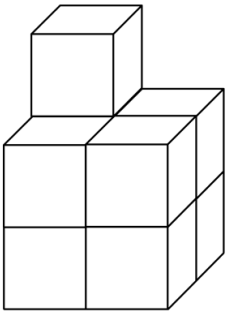


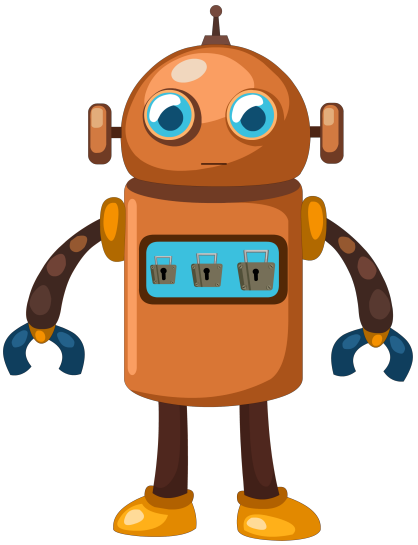
Figure 2

A. ① and ②
B. ① and ④
C. ② and ③
D. ③ and ④
E. ② and ④

15 The switch to open a door is on the stomach of the robot below. The stomach has three locks from smallest to largest with three different keys: the key with a square, the key with a triangle, and the key with a circle. According to the clues given by the robot, which of the following statements is correct?

(1) The key with a square corresponds to a larger lock than the key with a triangle;

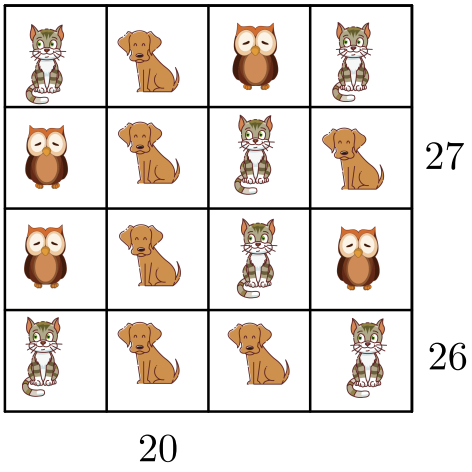
(2) The key with a circle corresponds to a smaller lock than the key with a triangle.





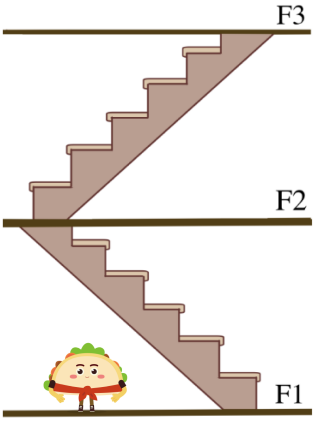
A. The key with a triangle corresponds to the smallest lock.
B. The key with a square corresponds to the medium lock.
C. The key with a circle corresponds to the medium lock.
D. The key with a square corresponds to the largest lock.
E. The key with a circle corresponds to the largest lock.

16 The same animal represents the same number, and different animals represent different numbers. The numbers outside the big square are the sums of the four numbers in that row or column. What number does the cat respresent?



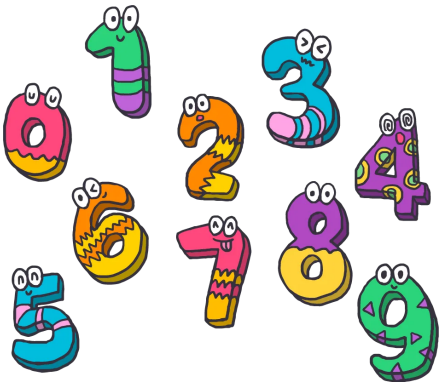
A. 5 B. 8 C. 10 D. 16 E. 9

17 The stairs from the first floor to the third floor in a building are shown below. Anto is climbing upstairs. It takes him 1 minute to climb a floor. How many minutes does Anto need to walk from the 1^{st} floor to the 6^{th} floor?



A. 6 B. 5 C. 4 D. 3 E. 2

18 There are 10 digits and they want to line up to take a photo. The difference between every 2 adjacent digits is 1. There is/are _____ way(s) for them to line up.

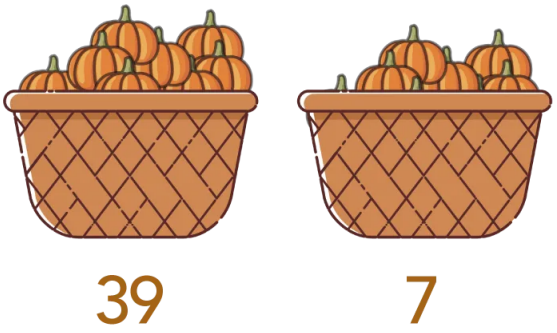


A. 0 B. 1 C. 2 D. 3 E. 4

19 31 children stand in a line from shortest to tallest. The tallest child's height is 141 cm and he is the last one in the line. Mulan is the 10^{th} counting from the front. If there is no two children having the same height, and all their heights are whole numbers, what is the tallest possible height of Mulan?

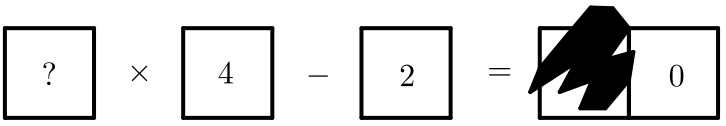
A. 119 cm B. 120 cm C. 121 cm D. 131 cm E. 152 cm

20 How many pumpkins should be taken from the first basket to the second one to make the baskets have the same number of pumpkins?



A. 5 B. 6 C. 11 D. 16 E. 18

21 Observing the equation, which of the following numbers should be filled in the box with the question mark?



A. 5 B. 4 C. 3 D. 2 E. 1

22 The 4 figures below are formed by 6 different shapes. Different shapes represent different digits, and each of the first three figures is formed by 3 shapes and represents a 3-digit number among 928, 526, and 876. Then, which number does the last figure represent?

A. 285

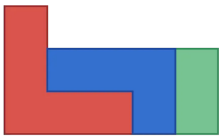
B. 289

C. 295

D. 625

E. 965

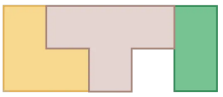
(1)



(2)



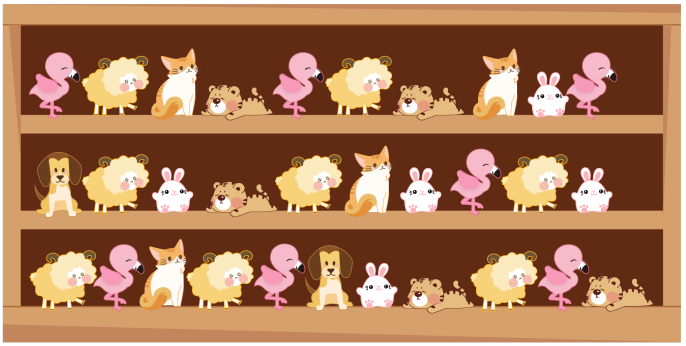
(3)



(4)



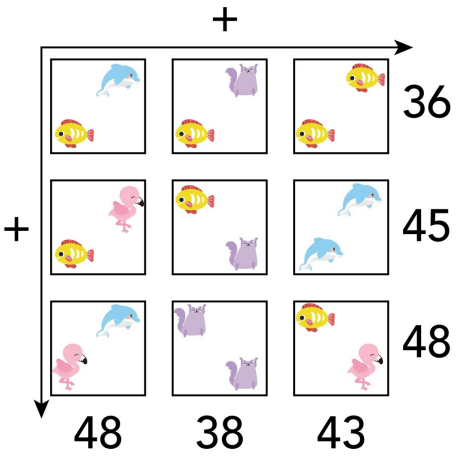
23 Math Town holds a counting competition. There are some toys in a showcase. Anyone who can count the number of sheep correctly will win all the toys. How many sheep are in the showcase?



A. 5 B. 6 C. 7 D. 8 E. 9

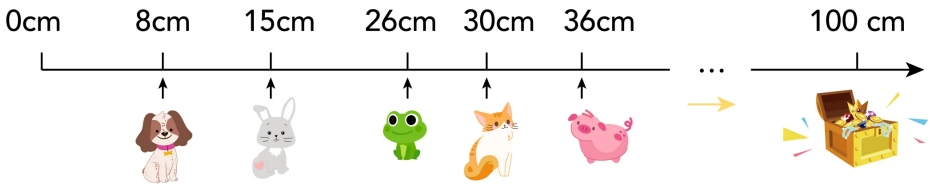
24 There are some animal stickers. The same animal sticker represents the same number, and the different animal stickers represent different numbers. The sums of the 6 numbers in each row or column are shown below.

If  = 7, then  = _____ .



A. 4 B. 6 C. 5 D. 7 E. 8

25 Five little animals start running to the right from different spots as shown in the picture. Who will get the treasure box exactly?

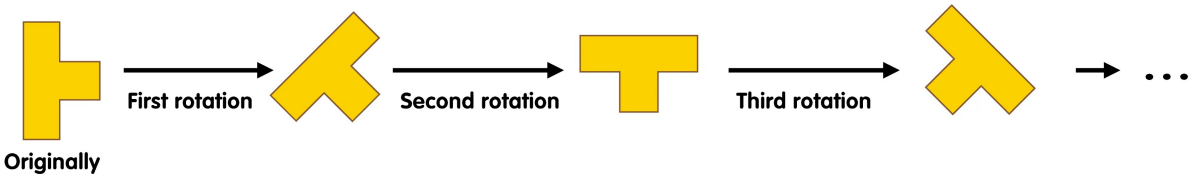


Each step:



A.  B.  C.  D.  E. 

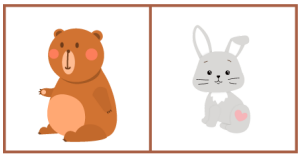
26 Observe the pictures and find the pattern. Rotate  _____ times, and  appears.

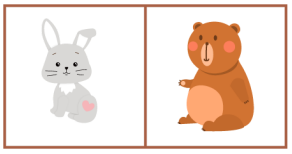


A. 6 B. 7 C. 8 D. 9 E. 10

27 Vicky cuts one piece out of this grid as shown below. Which of the following pieces could be the one she cuts out?



A. 

B. 

C. 

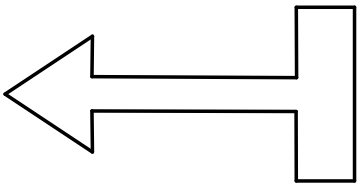
D. 

E. 

28 Daniel raises some ducks and dogs. All the ducks and dogs have 18 legs and 5 pairs of wings in total. How many ducks and dogs are there in total?

A. 18 B. 13 C. 9 D. 7 E. 5

29 How many sides are there in the shape below?

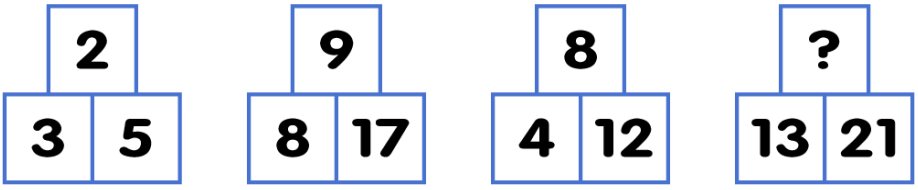


A. 2 B. 4 C. 7 D. 9 E. 11

30 Oli is 7 years older than Kiko, and Lindsay is 5 years younger than Oli. Who is the youngest person?

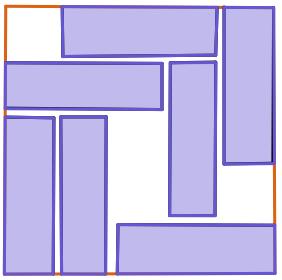
A. Oli
B. Kiko
C. Lindsay
D. Both Oli and Kiko are the youngest
E. Impossible to determine

31 Observe the figures below. ? = _____ .



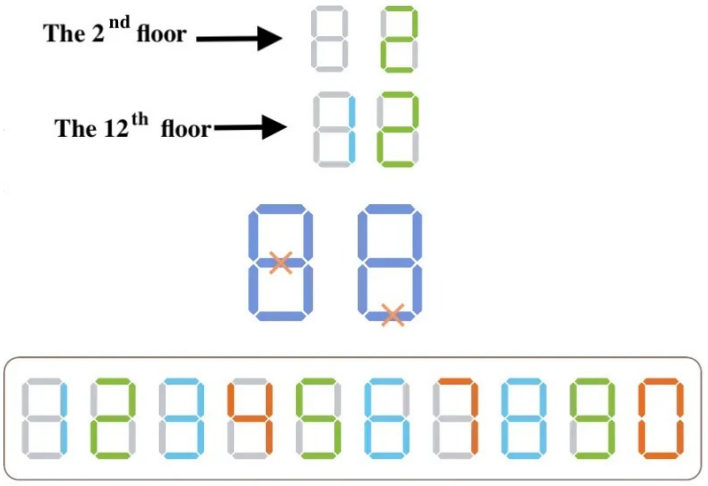
A. 24 B. 21 C. 11 D. 18 E. 8

32 Seven identical candy bars are arranged on the bottom of a square box. Cindy wants to slide the candy bars so that there will be room for one more candy bar. What is the least number of candy bars she should slide?



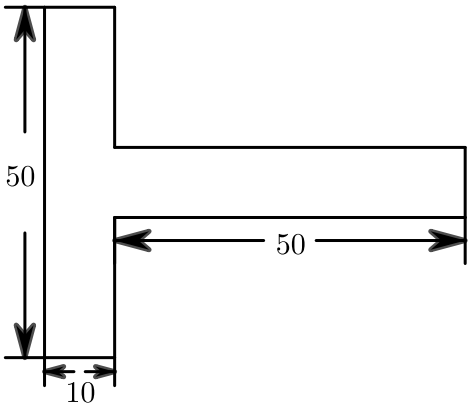
A. 1 B. 2 C. 3 D. 4 E. 5

33 In an elevator, there is a *LED* screen made up of small tubes to show the number of floor. Some of the tubes are faulty so that some floors cannot be properly shown. If Anna wants to reach the 20^{th} floor from the first floor, there are _____ floors that can be shown correctly.



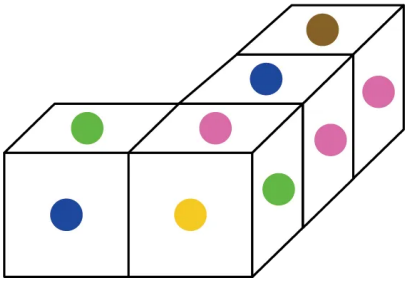
A. 4 B. 5 C. 6 D. 7 E. 8

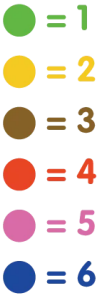
34 The perimeter of the following shape is _____ .



A. 110 B. 160 C. 200 D. 220 E. 260

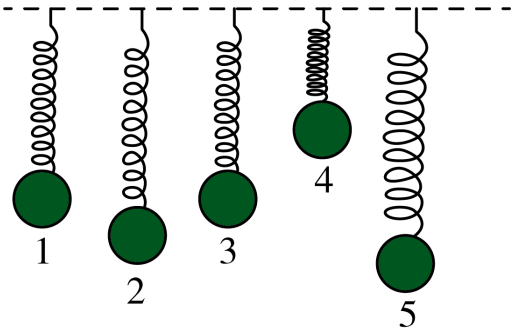
35 James places four identical cubes to form a figure below. There are 6 dots of different colors on the 6 faces, and each color represents a number as shown on the right. What is the sum of four numbers represented by the colors at the bottom of the figure?





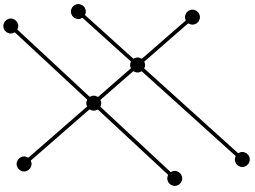
A. 18 B. 15 C. 14 D. 13 E. 10

36 Vera has 5 identical springs, and she hangs five balls with the springs as shown below. Which of the following balls is the heaviest?



A. 1 B. 2 C. 3 D. 4 E. 5

37 How many line segments are there in the figure below?



A. 3 B. 5 C. 7 D. 12 E. 18

38 Let's convert!

1 hour 45 minutes = _____ minutes

A. 145 B. 105 C. 95 D. 75 E. 65

39 In a math quiz, Mr. Pan records 85 points as +5, and records 88 points as +8. Max gets 93 points. How does Mr. Pan record Max's score?

A. +3 B. +13 C. +15 D. +11 E. +23

40 Five ants want to eat the chocolate balls, and they must walk along the rope. They start at the same time at the same speed. Which of the following ants would be the first one to eat the chocolate ball?

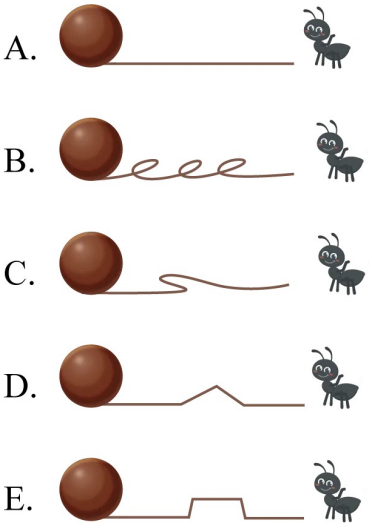
A. *A*

B. *C*

C. *B*

D. *D*

E. *E*



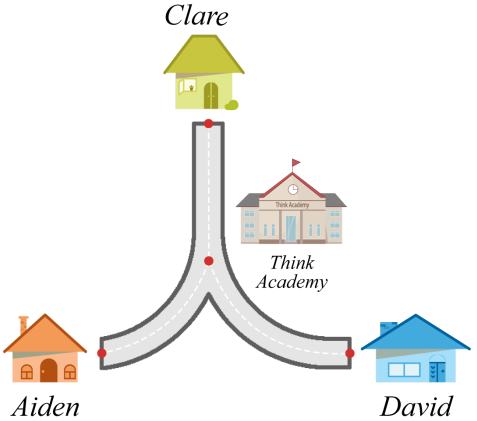
41 The picture below shows the location of Think Academy and the houses of Aiden, Clare, and David.

① Aiden's house is 27 km away from Clare's house;

② Clare's house is 35 km away from David's house;

③ Think Academy is 24 km away from David's house.

Thus, the distance between Aiden's house and Think Academy is _____ km.



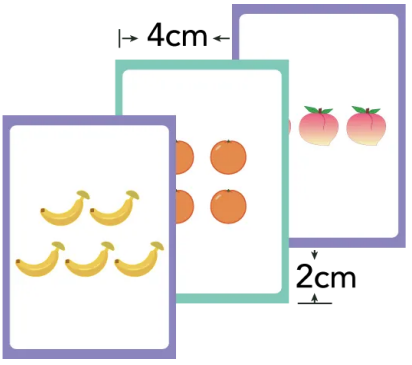
A. 12 B. 16 C. 24 D. 19 E. 11

42 There are some animals lining up to buy cakes. Momo the Monkey wants to give one lollipop to each animal in front of her. How many lollipops should she prepare?



A. 1 B. 2 C. 3 D. 4 E. 5

43 There are 3 fruit cards of the same size, and each card has a width of 6 cm and a length of 9 cm. Alan places the cards one on each other at equal spaces to form a shape as shown below. What is the perimeter of this shape in centimeters?



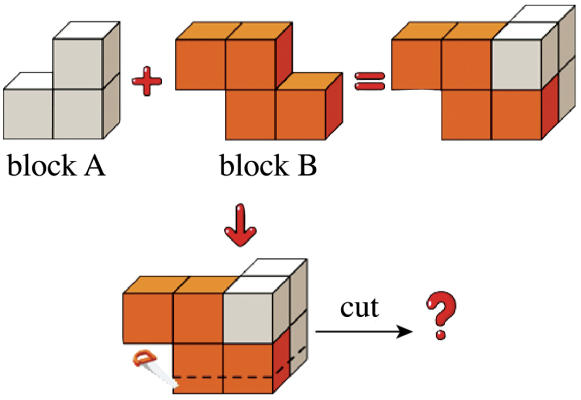
A. 90
B. 68
C. 54
D. 27
E. Impossible to determine.

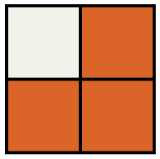
44 Observe the pictures carefully, and find the pattern. What number does the last picture stand for?

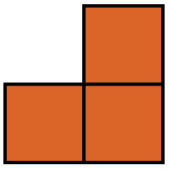


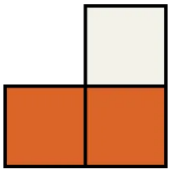
A. 22 B. 212 C. 4 D. 211 E. 112

45 Sandy uses block A and block B to form a new figure as shown below. If Sandy cuts the figure along the dotted line and removes the upper part, what does the top view of the bottom part look like?

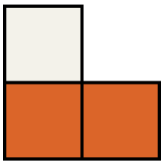


A. 

B. 

C. 

D. 

E. 

NOTE

