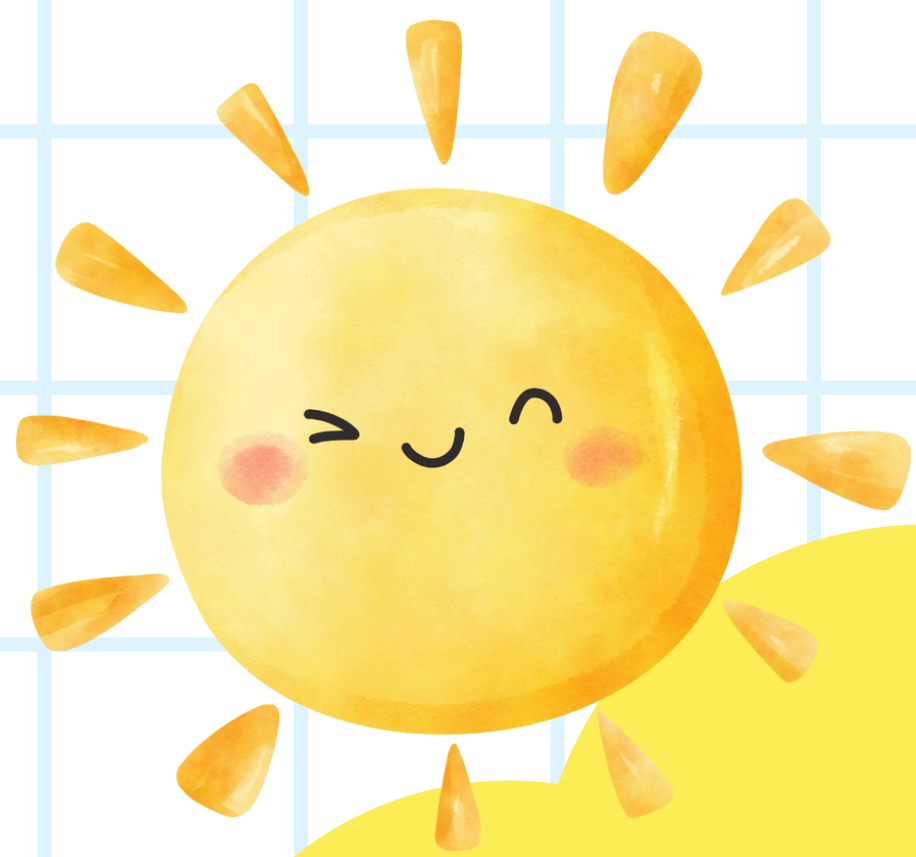
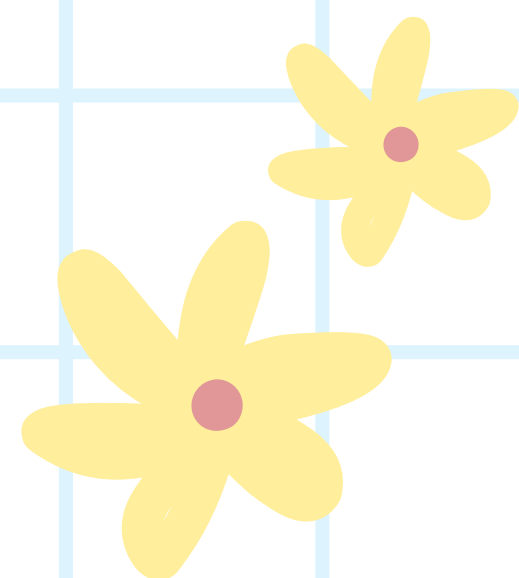




DICTIONARY TWO



MATHEMATICAL EXPRESSIONS AND RELATIONSHIPS

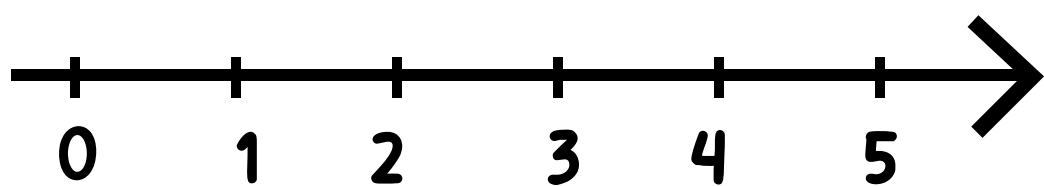
Try this

- Look at the key words and the picture.
- Read the example sentence out loud.
- Imagine the story and relate it to your life.

Number Line

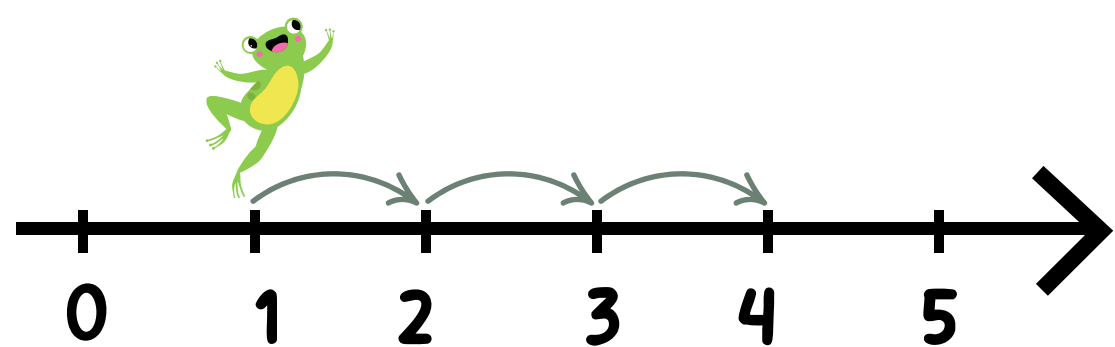
[ˈnəm-bər ˈlīn] • noun

A straight line with numbers in order to help us count or solve problems.



Example:

Mr. Frog hops on the **number line**! He starts at 1 and jumps 3 steps right. Where does he land?



He lands on 4.



Number Sentence

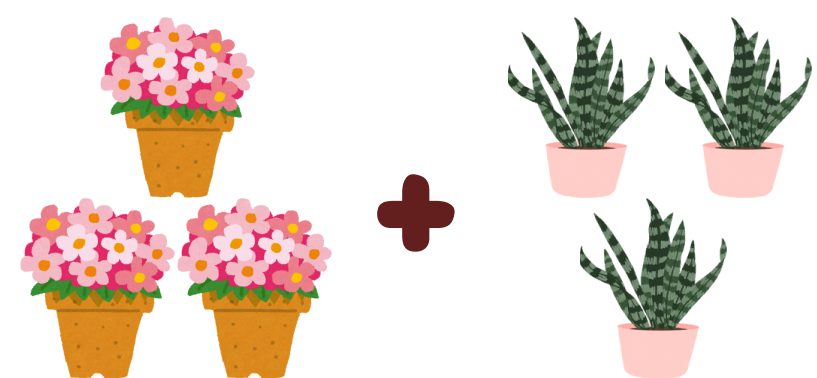
[ˈnəm-bər ˈsen-tən(t)s] • noun

A math "story" using numbers and symbols like +, -, ×, ÷, =.

$$6 + 3 = 9$$

Example:

How many plants are there?



The **number sentence** is:

$$3 + 3 = 6$$



Equation

[i-ˈkwā-zhən] • noun

A math statement showing two amounts are equal, with a "=" sign.

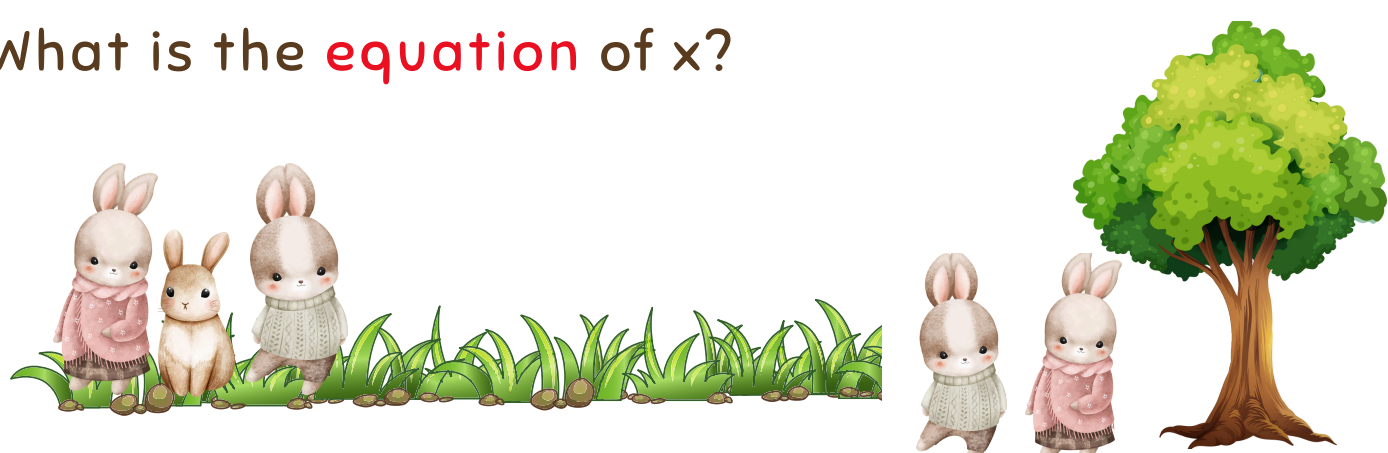
$$2+2=4$$

$$E=m.c^2$$

$$a^2+b^2=c^2$$

Example:

There are 3 bunnies on the grass and 2 bunnies under the tree. The total number of bunnies is x. What is the **equation** of x?



$$3 + 2 = x$$



Expression

[ik-ˈspre-shən] • noun

A math phrase with numbers and symbols (like +, -, ×, ÷) but no "=".

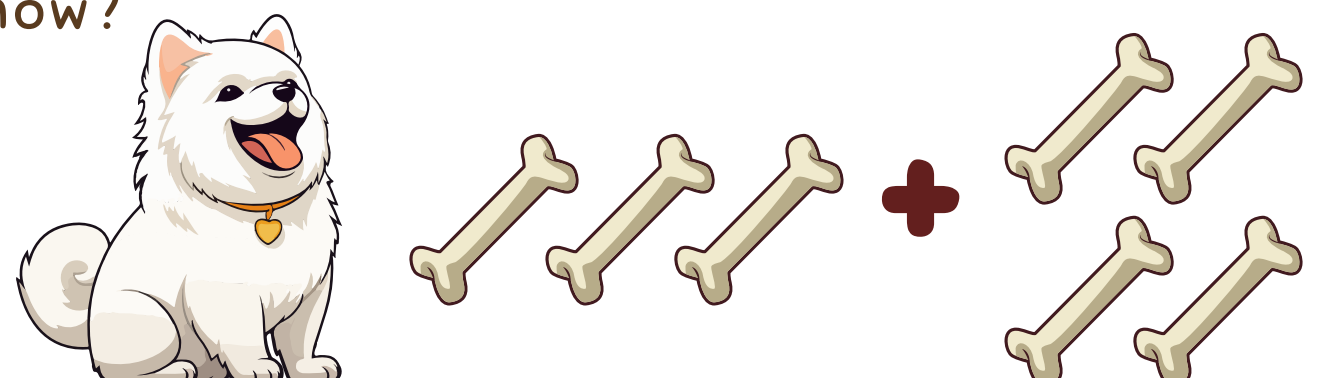
$$(a+b)^2$$

$$a+(b+c)$$

$$18 + 9$$

Example:

The puppy has 3 bones. He finds 4 more bones. What **expression** tells how many bones he has now?



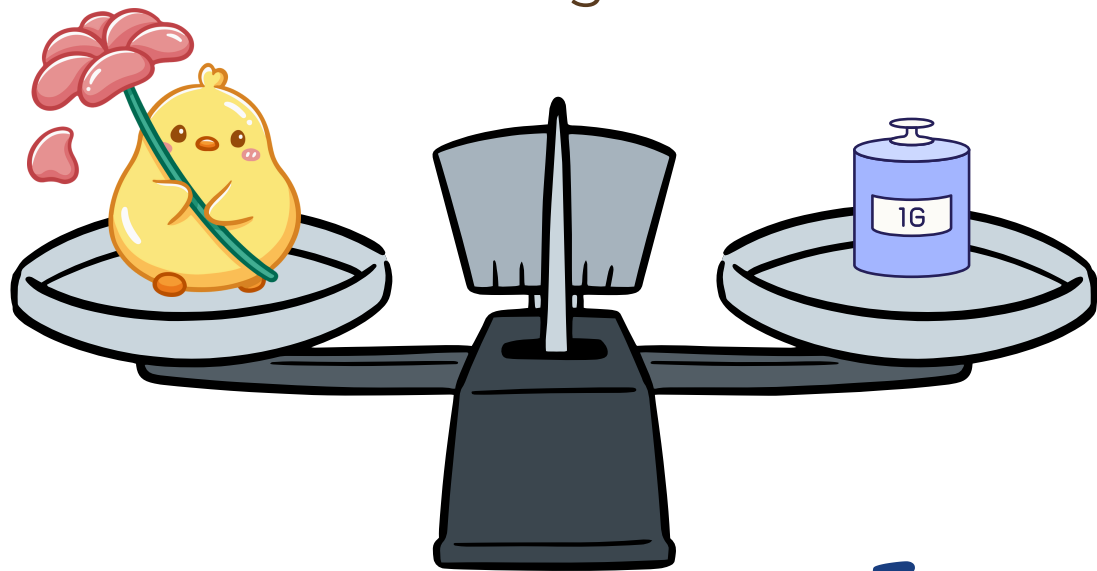
$$3 + 4$$



is Equal to

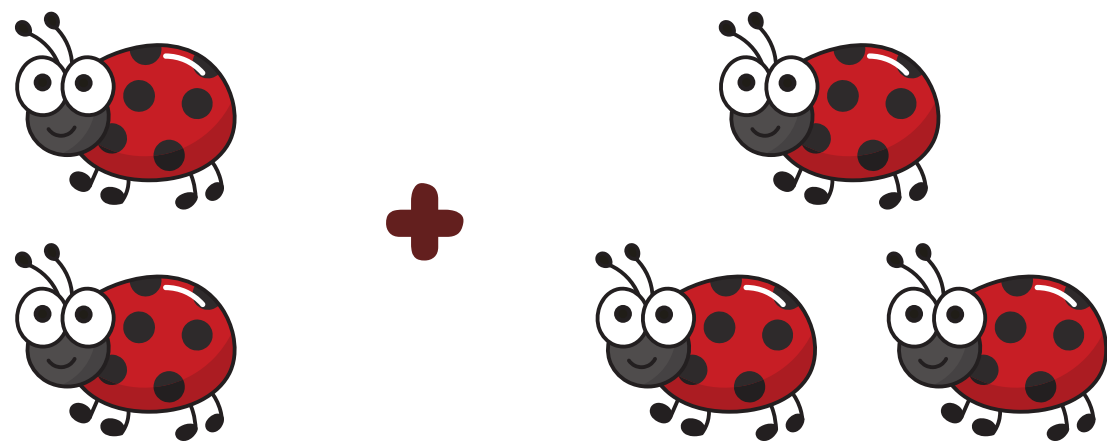
[iz ee-kwuhl too] • math phrase

Means "the same as" or "balances", shown by the "=" sign.



5

Example:
2 ladybugs + 3 ladybugs **is equal to** ____ ladybugs.



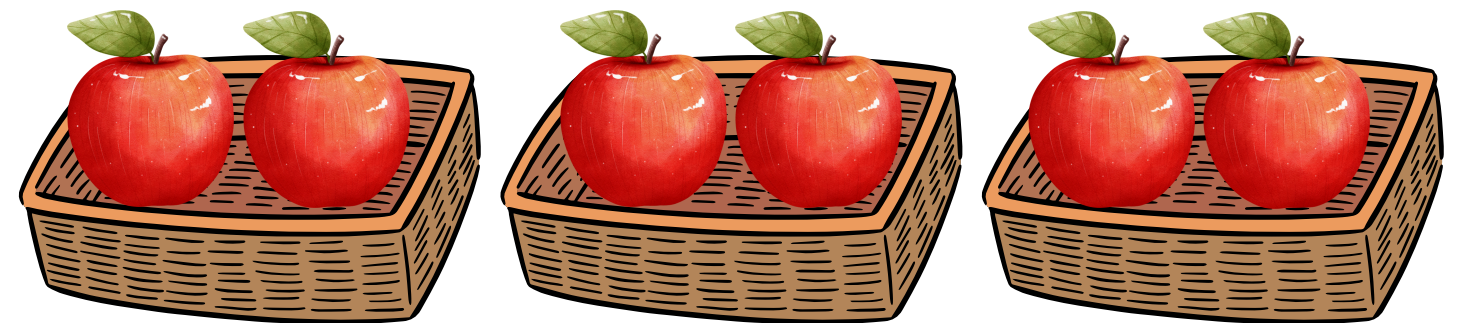
Each

[ēch] • adjective

Means every single one in a group.



Example:
There are 3 baskets with 2 apples **each**. How many apples total?



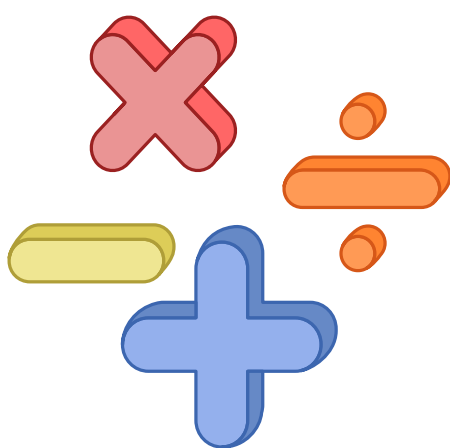
The number sentence is:

$$2 + 2 + 2 = 6$$

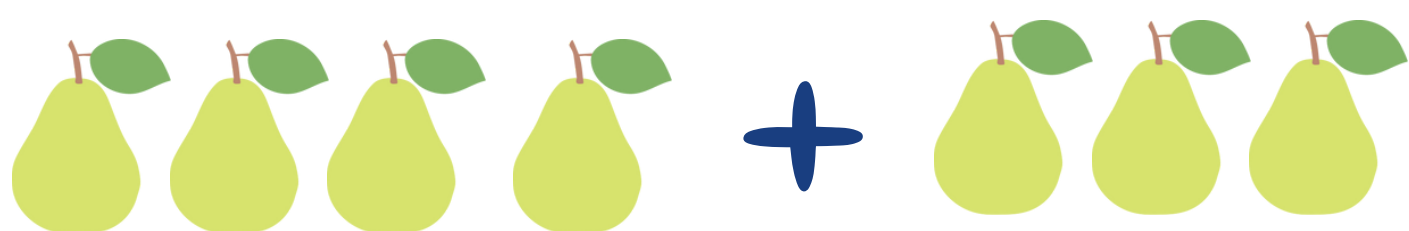
Operation

[ɑː.pə'reɪ.ʃən] • noun

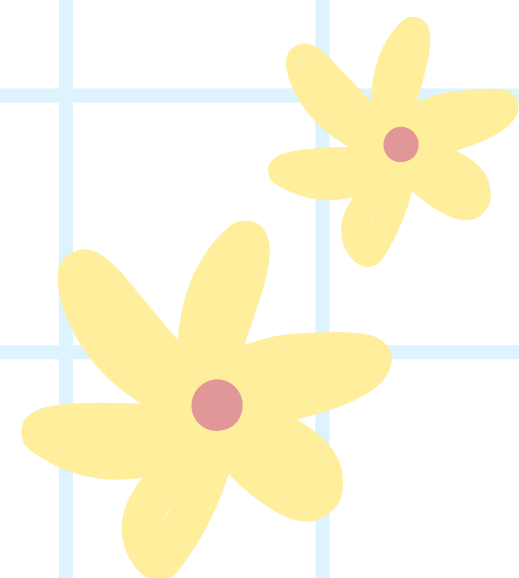
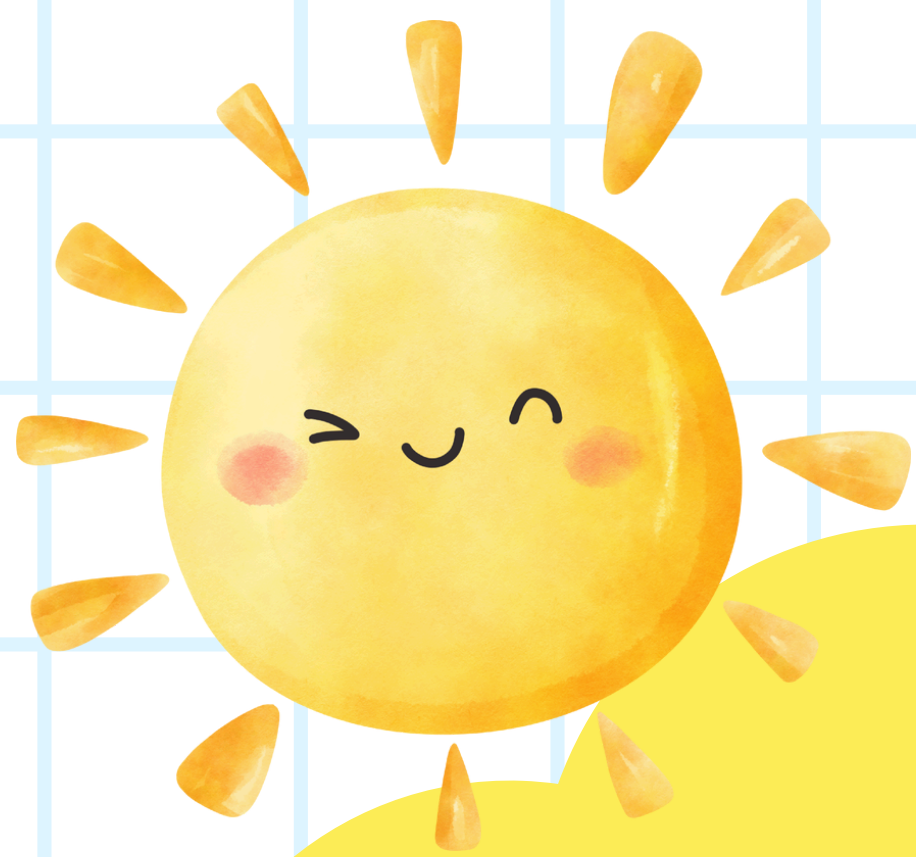
Means a math action you use to solve a problem, like add, subtract, multiply, or divide.



Example:
Lily has 4 pears. She gets 3 more from her friend.
What **operation** will you use to find out how many apples she has now?



Use the **addition operation**



DICTIONARY TWO

ADDITION AND JOINING



Try this

- Look at the key words and the picture.
- Read the example sentence out loud.
- Imagine the story and relate it to your life.



Addition

[ə-'di-shən] • noun

A way of combining things and counting them together as one large group.



Example:

Lily sees 4 butterflies in the garden. Then she sees 3 more. Please use an expression of **addition** to show how many butterflies Lily saw in total.



$$4 + 3$$

Plus

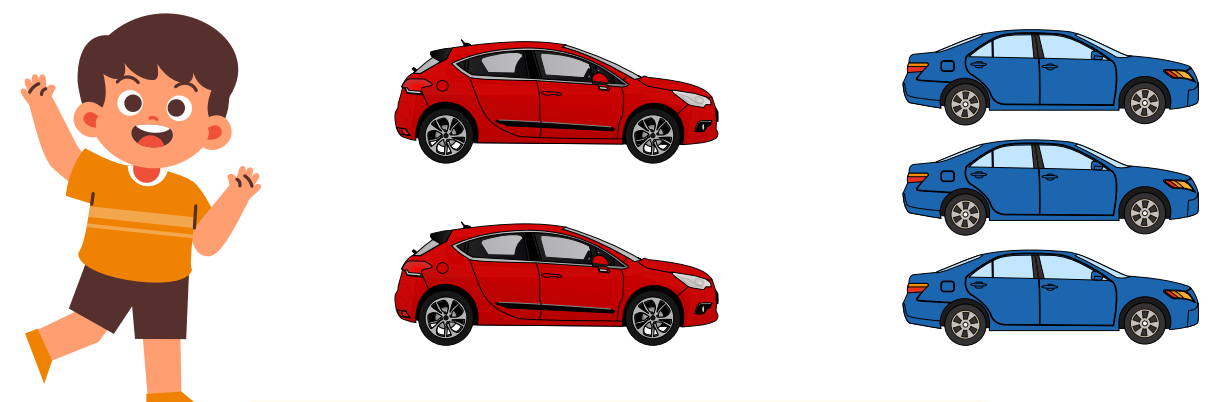
['pləs] • preposition

Used to show that numbers are being added together.

$$1 + 1 = 2$$

Example:

Tom has 2 red toy cars **plus** 3 blue toy cars. How many toy cars does Tom have in total?



$$2 + 3 = 5$$

He has 5 toy cars in total.

Add

['ad] • verb

To combine numbers or objects to find the total.



Example:

Ben has 3 toy robots. He gets 2 more. Can you **add** the robots to find out how many Ben has now?

The number sentence is:

$$3 + 2 = 5$$



Sum

['səm] • noun

The total when numbers are added together. A math term that emphasizes the result of an addition operation.

$$2 + 2 = 4$$

Example:

Jack has 5 balloons. Anna gives him 2 more. What is the **sum** of their balloons?

The number sentence is:

$$5 + 2 = 7$$



Total

['tō-tə] • noun

The whole amount after adding things together. A more everyday word that emphasizes the final amount.

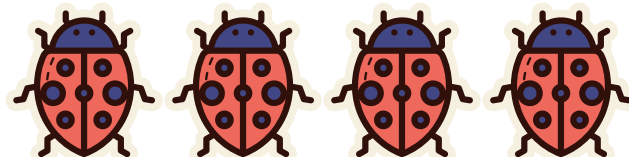


Example:

Sophie has 4 ladybug stickers and 6 star stickers.

What is the **total** number of stickers she has?

The number sentence is:



$$4 + 6 = 10$$



Altogether

[əl-tə-'ge-thər] • adverb

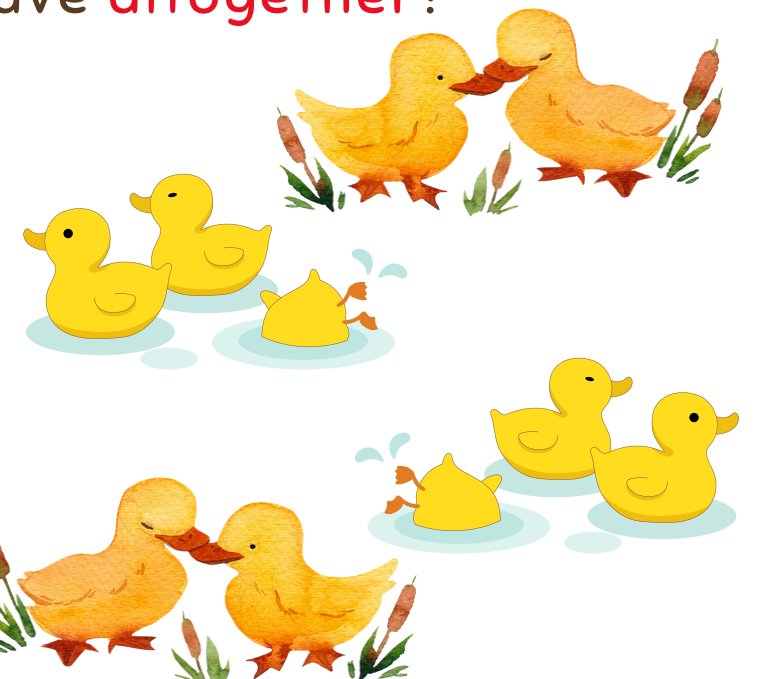
The whole amount when everything is combined.
Emphasizes the final total.



Example:

Liam has 3 ducks, and his sister has 7 ducks.
How many ducks do they have **altogether**?

The number sentence is:



$$3 + 7 = 10$$



Together

[tə-'ge-thər] • adverb

Combined in one group or total amount.
Emphasizes the act of combining.



Example:

Ella has 10 cupcakes. Max has 2 cupcakes.

How many cupcakes do they have **together**?

The number sentence is:

$$10 + 2 = 12$$



Put

['pʊt] • verb

To place something in a group, set, or space.



Example:

Emma **put** 4 apples in the basket. Then she **put** 2 more. How many apples did she **put** in the basket in total?

The number sentence is:

$$4 + 2 = 6$$



Give

['giv] • verb

To hand something to someone else.



Example:

Nora has 5 cookies. Ashley **gives** 2 cookies to Nora. How many cookies does Nora have now?

The number sentence is:

$$5 + 2 = 7$$

Note:

When you see the word “give” in a problem, you need to look carefully at the situation: Who is giving, and who is receiving? If someone gives something away, that’s subtraction. If someone gets something, that’s addition.



Bring

['brɪŋ] • verb

To take something to a place or group.



Example:

Mia has 4 crayons. Her friend will **bring** 3 more. How many crayons will they have together?

The number sentence is:

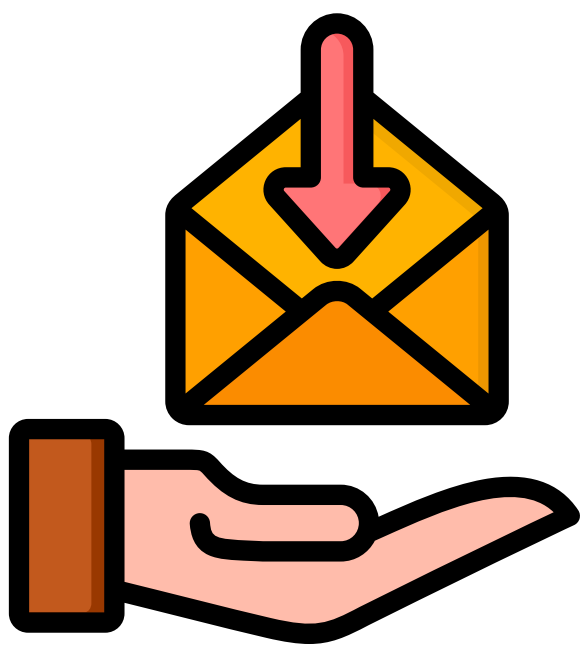
$$4 + 3 = 7$$



Receive

[ri-'sēv] • verb

To get something that is given to you.



Example:

Noah has 5 toy trucks. He will **receive** 1 more from his dad. How many toy trucks will Noah have after he **receives** them?

The number sentence is:

$$5 + 1 = 6$$



Collect

[kə-'lekt] • verb

To gather things and put them together.



Example:

Olivia **collected** 4 pinecones in the morning. She **collected** 3 more in the afternoon. How many pinecones did she collect in total?

The number sentence is:

$$4 + 3 = 7$$



Win

['win] • verb

To get something as a prize or reward.



Example:

Ella can **win** 2 stickers each time she finishes a puzzle.

If she finishes 3 puzzles, how many stickers will she **win**?

The number sentence is:

$$2 + 2 + 2 = 6$$



Another

[ə'nʌð.ə] • adjective

One more in addition to what you have.



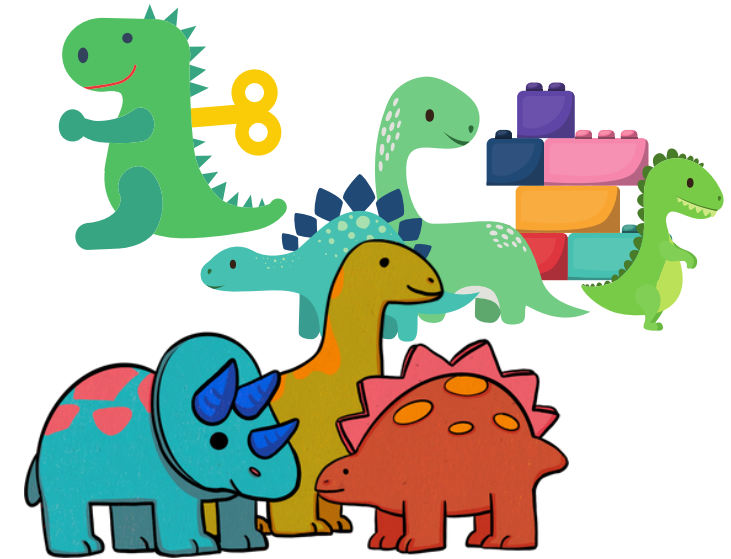
Example:

Tommy has 9 toy dinosaurs. He gets **another** one from his friend.

How many toy dinosaurs does Tommy have now?

The number sentence is:

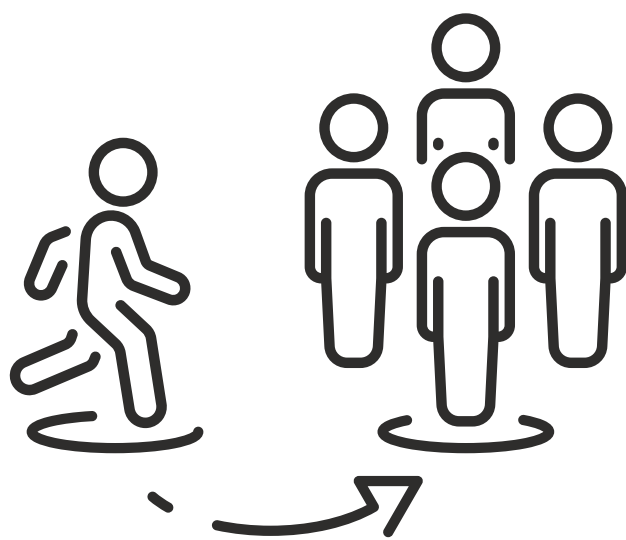
$$9 + 1 = 10$$



Join

['join] • verb

To put things or groups together (addition action).



Example:

Emma has 15 red blocks. She will **join** the red blocks with 4 blue blocks.

How many blocks does she have after she **joins** them?

The number sentence is:

$$15 + 4 = 19$$



Save

['sāv] • verb

To keep something to use later.



Example:

James **saves** \$13 on Monday and \$2 on Tuesday. How much did he save in total?

The number sentence is:

$$13 + 2 = 15$$

Note:

The word "save" doesn't always mean add or subtract. Look at what's happening—are we saving more, or figuring out what's left? The story tells us which operation to use.