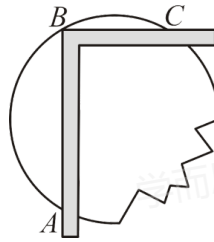


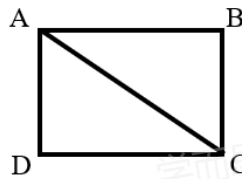
2025 July AMC8 Week 2 Day 2 - Circles

- 1 (1分) A part of a circular glass mirror is damaged. To obtain a mirror of the same size, a worker uses a right-angle ruler for measurement as shown in the figure, and finds that $AB = 12\text{cm}$ and $BC = 5\text{cm}$. What is the diameter of the circular mirror in centimeters?



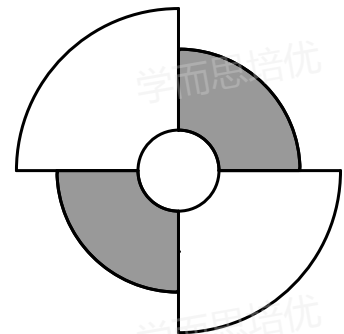
- A. 10 B. 11 C. 12 D. 13 E. 14

- 2 (1分) As shown in the figure, $ABCD$ is a rectangle with length 4, width 3, and diagonal length 5. It is rotated 90° clockwise around point C . Find the area swept by side AB . (Take $\pi = 3.14$)



- A. 7.065 B. 9.42 C. 12.56 D. 15.7 E. 19.625

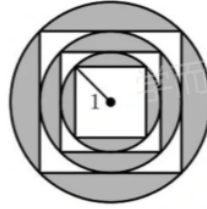
- 3 (1分) In the figure on the right, two sectors with central angles of 90° are placed on top of a large circle, and a small circle is placed on top of the two sectors. All four shapes share the same center. If the ratio of the radii of the small circle, the large circle, and the sectors is $1 : 3 : 4$, what percentage of the total area is occupied by the shaded region?



- A. 32% B. 20% C. 28% D. 36% E. 40%

4

(1分) Some squares are inscribed in a set of concentric circles, as shown in the figure. Given that the radius of the smallest circle is 1cm , what is the area of the shaded part in square centimeters? (Take $\pi = \frac{22}{7}$)



A. 6

B. 8

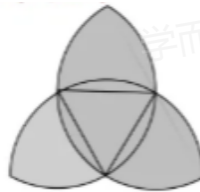
C. 9

D. $\frac{78}{7}$

E. 12

5

(1分) With each of the three vertices of an equilateral triangle with a side length of 2 centimeters as the center, arcs are drawn with a radius of 2 centimeters. What is the perimeter of the shaded figure in centimeters? (Take $\pi = 3.14$)



A. 3.14

B. 6.28

C. 9.42

D. 12.56

E. 15.7