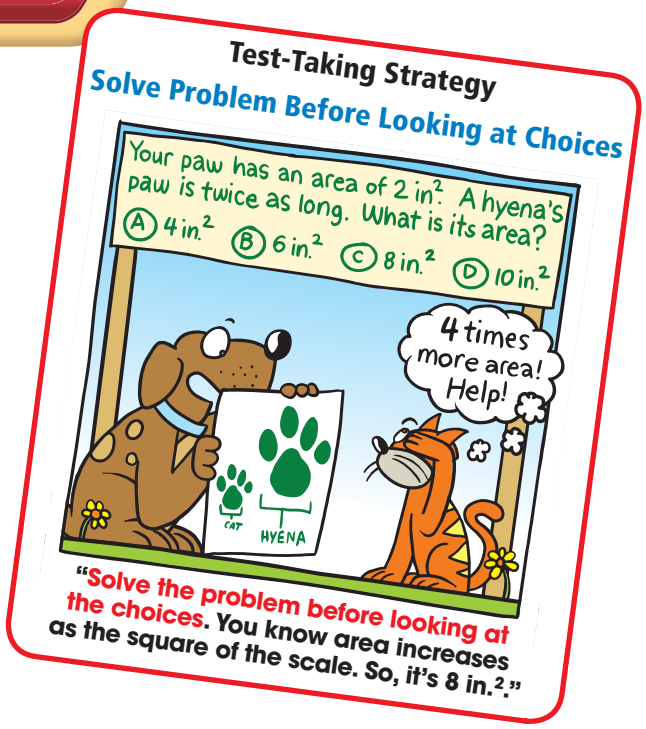
English Spanish

5 Standardized Test Practice



1. A set of data is shown below. Two of the data are missing.

8, 2, 10, 4, 8, 4, 8, 8, ____ , ____

The mean of the complete set of data is 6, and the median is 7. What are the two missing data?

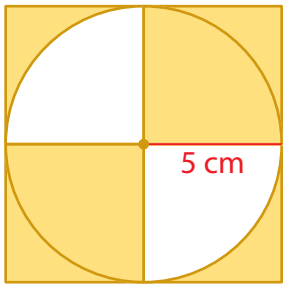
A. 1 and 7

B. 2 and 6

C. 4 and 4

D. 6 and 6

2. What is the area of the shaded region in the figure below? (Use 3.14 for π.)



F. 21.5 cm^2

G. 60.75 cm^2

H. 80.375 cm^2

I. 84.3 cm^2

3. A clockwise rotation of 90° is equivalent to a counterclockwise rotation of how many degrees?

4. You are building a scale model of a park that is planned for a city. The model uses the scale below.

1 centimeter = 2 meters

The park will have a rectangular reflecting pool with a length of 20 meters and a width of 12 meters. In your scale model, what will be the area of the reflecting pool?

A. 60 cm^2

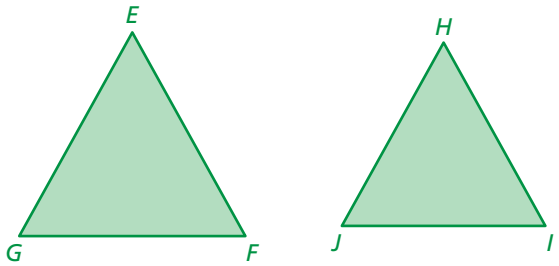
B. 120 cm^2

C. 480 cm^2

D. 960 cm^2

5. In the figure, $\triangle EFG \sim \triangle HIJ$.

Which proportion is *not* necessarily correct for $\triangle EFG$ and $\triangle HIJ$?



F. $\frac{EF}{FG} = \frac{HI}{IJ}$

H. $\frac{GE}{EF} = \frac{JH}{HI}$

G. $\frac{EG}{HI} = \frac{FG}{IJ}$

I. $\frac{EF}{HI} = \frac{GE}{JH}$

6. Brett was solving the equation in the box below.

$$\frac{c}{5} - (-15) = -35$$
$$\frac{c}{5} + 15 = -35$$
$$\frac{c}{5} + 15 - 15 = -35 - 15$$
$$\frac{c}{5} = -50$$
$$\frac{c}{5} = \frac{-50}{5}$$
$$c = -10$$

What should Brett do to correct the error that he made?

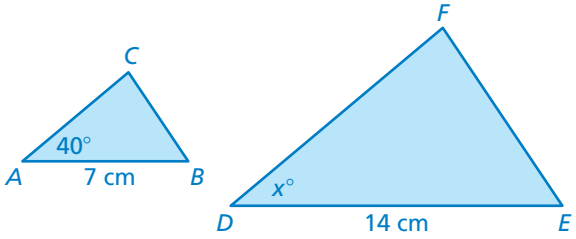
A. Subtract 15 from -35 to get -20.

B. Rewrite $\frac{c}{5} - (-15)$ as $\frac{c}{5} - 15$.

C. Multiply both sides of the equation by 5 to get $c = -250$.

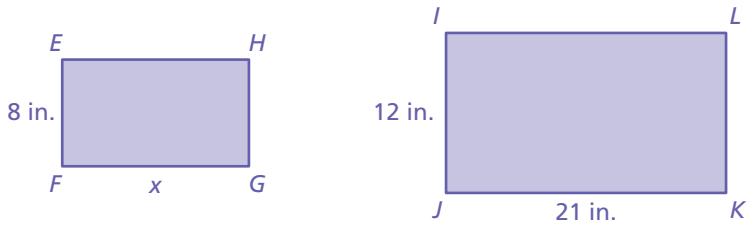
D. Multiply both sides of the equation by -5 to get $c = 250$.

7. In the figure below, $\triangle ABC \sim \triangle DEF$.



What is the value of x?

8. In the figure below, rectangle *EFGH* ~ rectangle *IJKL*.



What is the value of x?

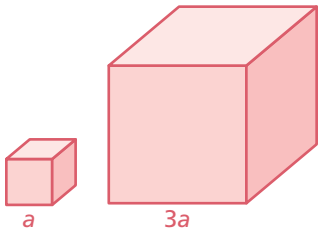
F. 14 in.

G. 15 in.

H. 16 in.

I. 17 in.

9. Two cubes are shown below.



How many of the smaller cubes can be stacked to completely fill the larger cube?

A. 3

B. 9

C. 27

D. 54

10. A map of Donna's state has the following scale:

Think
Solve
Explain

$$\frac{1}{2} \text{ inch} = 10 \text{ miles}$$

Part A Donna measured the distances between her town and the state capitol on the map. Her measurement was $4\frac{1}{2}$ inches. Based on Donna's measurement, what is the actual distance, in miles, between her town and the state capitol? Show your work and explain your reasoning.

Part B Donna wants to mark her favorite campsite on the map. She knows that the campsite is 65 miles north of her town. What distance, in inches, on the map represents an actual distance of 65 miles? Show your work and explain your reasoning.