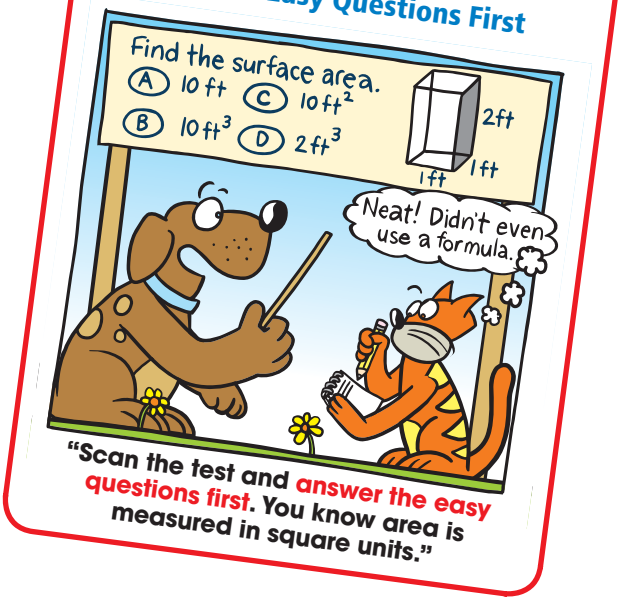
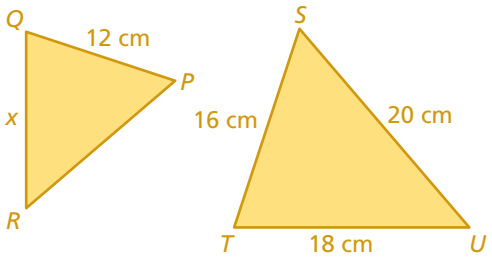
English Spanish

6 Standardized Test Practice

Test-Taking Strategy
Answer Easy Questions First



1. In the figure below, $\triangle PQR \sim \triangle STU$.



What is the value of x?

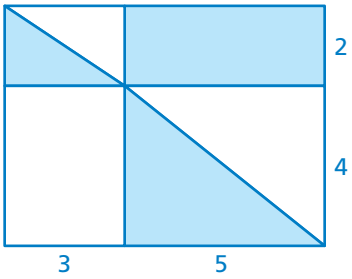
A. 9.6 cm

B. $10\frac{2}{3}$ cm

C. 13.5 cm

D. 15 cm

2. The rectangle below is divided into six regions.



What is the area of the part of the figure that is shaded?

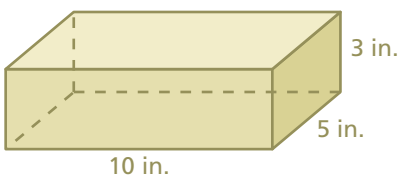
F. 23 units^2

G. 24 units^2

H. 25 units^2

I. 28 units^2

3. A right rectangular prism and its dimensions are shown below.



What is the total surface area, in square inches, of the right rectangular prism?

4. You rode your bicycle 0.8 mile in 2 minutes. You want to know how many miles you could ride in 1 hour, if you ride at the same rate. Which proportion could you use to get your answer?

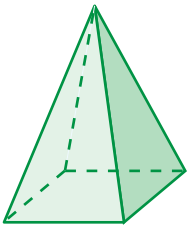
A. $\frac{0.8}{2} = \frac{60}{x}$

B. $\frac{0.8}{2} = \frac{x}{60}$

C. $\frac{0.8}{2} = \frac{30}{x}$

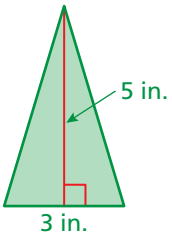
D. $\frac{0.8}{2} = \frac{x}{30}$

5. A right square pyramid is shown below.



The square base and one of the triangular faces of the right square pyramid are shown below with their dimensions.

Square Base



A Triangular Face

What is the total surface area of the right square pyramid?

F. 16.5 in.^{2}

G. 31.5 in.^{2}

H. 39 in.^{2}

I. 69 in.^{2}

6. A right circular cylinder with a radius of 3 centimeters and a height of 7 centimeters will be carved out of wood.

Think
Solve
Explain

Part A Draw and label a right circular cylinder with a radius of 3 centimeters and a height of 7 centimeters.

The two bases of the right circular cylinder will be painted blue. The rest of the cylinder will be painted red.

Part B What is the surface area, in square centimeters, that will be painted blue? Show your work and explain your reasoning. (Use 3.14 for π.)

Part C What is the surface area, in square centimeters, that will be painted red? Show your work and explain your reasoning. (Use 3.14 for π.)

7. Anna was simplifying the expression in the box below.

$$-\frac{3}{8} \cdot \left[\frac{2}{5} \div (-4)\right] = -\frac{3}{8} \cdot \left[\frac{2}{5} \cdot \left(-\frac{1}{4}\right)\right]$$
$$= -\frac{3}{8} \cdot \left(-\frac{1}{10}\right)$$
$$= -\frac{3}{80}$$

What should Anna do to correct the error that she made?

A. Make the product inside the brackets positive.

B. Multiply by -10 instead of $-\frac{1}{10}$.

C. Make the final product positive.

D. Multiply by 4 instead of $-\frac{1}{4}$.

8. Which equation has the greatest solution?

F. $-3x + 9 = -15$

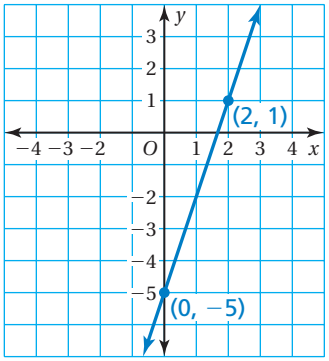
G. $12 = 2x + 28$

H. $\frac{x}{2} - 13 = -7$

I. $6 = \frac{x}{3} + 10$

9. A cube has a total surface area of 600 square inches. What is the length, in inches, of each edge of the cube?

10. A line contains the two points plotted in the coordinate plane below.



Another point on this line can be represented by the ordered pair $(-1, y)$. What is the value of y?

A. -11

B. -8

C. -6

D. -2