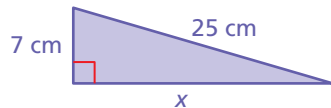


8 Standardized Test Practice

1. The perimeter of the triangle shown below is greater than 50 centimeters. Which inequality represents this algebraically?

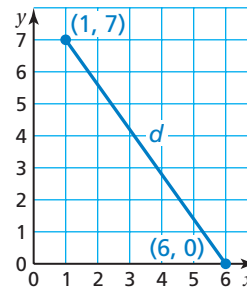


- A. $\frac{1}{2}(7x) < 50$ C. $\frac{1}{2}(7x) > 50$
 B. $x + 32 < 50$ D. $x + 32 > 50$
2. A store has recorded total dollar sales each month for the past three years. Which type of graph would best show how sales have increased over this time period?

- F. circle graph H. box-and-whisker plot
 G. line graph I. stem-and-leaf plot
3. What is the length d in the coordinate plane?

- A. 74
 B. $\sqrt{74}$

- C. 12
 D. $\sqrt{12}$



4. Which system of equations has infinitely many solutions?

F. $x + y = 1$
 $x + y = 2$

H. $4x - 2y = 9$
 $y = 2x - 4.5$

G. $y = x$
 $y = -x$

I. $3x + 4y = 12$
 $y = \frac{3}{4}x + 3$

Test-Taking Strategy
After Answering Easy Questions, Relax

Which inequality best describes the annual cost x of owning a cat?

Vet Visits	\$546
Food	\$185
Boarding	\$119
Grooming	\$24
Treats/Toys	\$72

(A) $x < \$944$ (B) $x < \$945$
 (C) $x < \$946$ (D) $x < \$947$

I'm worth it!

"After answering the easy questions, relax and try the harder ones. For this, $x = \$946$. So, it's D."

5. Which is equivalent to $4\sqrt{25}$?

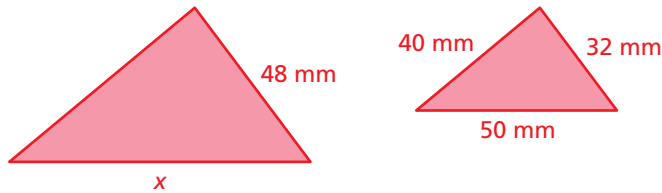
A. 20

C. 100

B. $\sqrt{29}$

D. $\sqrt{100}$

6. The triangles shown below are similar. What is the value of x ?



7. The table lists the mean, median, and mode salaries at a company. Suppose a new worker is hired at a salary of \$70,000. Which statement is true?

Mean	Median	Mode
\$62,000	\$58,000	\$54,000

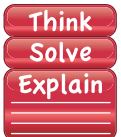
F. The mean annual salary must increase.

G. The median annual salary must increase.

H. The median annual salary must remain the same.

I. The mode annual salary must increase.

8. Does squaring a number always make it greater? Is the inequality shown below true for all numbers?

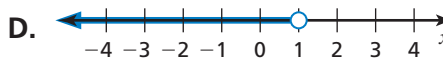
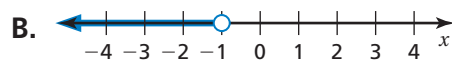
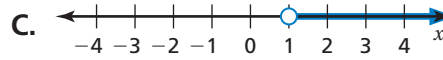
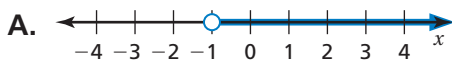


$$x^2 > x$$

Show your work and explain your reasoning.

9. Which graph represents the inequality below?

$$-2x + 3 < 1$$



10. The function $y = 29.95x$ represents the total cost y of purchasing x day passes to a water park. Which statement is true?

F. The domain represents day passes and it is continuous.

G. The domain represents day passes and it is discrete.

H. The domain represents total cost and it is continuous.

I. The domain represents total cost and it is discrete.

11. A television screen measures 36 inches across and 27 inches high. What is the length, in inches, of the television screen's diagonal?

