

# Problem Solving Test Prep

Choose the correct answer.

- 1 Which expression is equivalent to the one below?

$$a^2 - 4$$

- A.  $(a + 4) \times (a - 4)$
- B.  $(a + 2) \times (a - 2)$
- C.  $(a + 16) \times (a - 16)$
- D.  $(a^2 - 2) \times 2$

- 2 Which is the only number of juice boxes that **cannot** be packed in each of the following ways?

groups of 3  
packages of 6  
cartons of 10

- A. 60
- B. 70
- C. 90
- D. 120

- 3 Ricardo made this area model to multiply 347 and 56. Which partial product is missing from the model?

	300	40	7
50	15,000	■	350
6	1,800	240	42

- A. 20
  - B. 200
  - C. 2,000
  - D. 20,000
- 4 Which is the set of prime factors of 72?
- A. 2, 2, 2, 3, 3
  - B. 2, 2, 3, 3, 3
  - C. 2, 3, 3, 3
  - D. 2, 3, 3, 4

## Show What You Know

Solve each problem. Explain your answer.

- 5 The school library received a shipment of books. There were 27 cartons of 12 books and 19 cartons of 17 books. How many books were in the shipment? Explain.

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- 6 Jade has four unmarked rods that are 1 inch, 4 inches, 7 inches, and 9 inches long. How many different whole-number lengths up to 21 inches can she measure if she uses a rod only once to measure a length? Explain.

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