

FINDING A SQUARE NUMBER

- 1 Count the side length of the square array of dots.
- 2 Multiply that side length by itself to get the total dots.
- 3 Write it as $n \text{ squared} = n \times n = \text{total}$.

WARM-UP

Draw a growing square pattern on the grid paper.

	$\times 20$	$\times 3$
10	200	30
7	140	21

Total: $200 + 30 + 140 + 21 = 391$

1. Mark side lengths 6, 8 and 9 on the squares you draw.
2. Shade the added L-shaped border when going from 8-by-8 to 9-by-9.
3. Count and label the total dots for the 6-by-6 square.

PRACTICE

- 1 In a board game, players arrange 7 rows of 7 counters each to make a square grid. How many counters are used?
- 2 During playtime, a child builds an 8-by-8 square with toy blocks. How many blocks are needed?
- 3 Friends play a hopscotch game with a 5-by-5 square layout of squares. How many small squares are drawn?
- 4 In a playground game, teams form a 15-by-15 grid of players for a large square formation. How many players are there?
- 5 For a school sports day, markers are placed in a 22-by-22 square pattern on the field. How many markers are used?
- 6 A video game level has a 13-by-13 grid of tiles. How many tiles make up the square area?

? ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Write A, S or N.

- a. A square number can be shown as a perfect square array of dots. ☐
- b. The next square number after 25 is 36. ☐
- c. A square number is even. ☐
- d. A square number ends in the digit 7. ☐