SQUARES AND SQUARE ROOTS

ANSWERS

THE **SQUARE** OF A NUMBER IS WHEN YOU MULTIPLY A NUMBER BY ITSELF.

HELPFUL EXAMPLES

$$3^2 = 3 \times 3 = 9$$
$$4^2 = 4 \times 4 = 16$$
$$11^2 = 11 \times 11 = 121$$

THE 2 (SQUARE) TELLS US TO FIND THE PRODUCT OF THE NUMBER AND ITSELF.

Find the square of each number.

1. 5^2 **25**   2. 12^2 **144**   3. 10^2 **100**   4. 16^2 **256**

5. 9^2 **81**   6. 25^2 **625**   7. 37^2 **1,369**   8. 30^2 **900**

Solve the word problems.

9. Tom's yard is in the shape of a perfect square. If one side of the yard is 6 meters long, what is the area of the yard?   **36 square meters**

10. Billy is covering his square floor with large pieces of wood. The wood pieces are also square in shape with a length of 2 feet. If one side of the floor is 16 feet long, how many pieces of wood will Billy need to cover his floor?   **64 pieces of wood**

THE **SQUARE ROOT** OF A NUMBER IS THE SQUARE YOU MULTIPLIED TO GET THE NUMBER. A RADICAL SIGN, $\sqrt{\ }$, IS USED TO SHOW THE POSITIVE SQUARE ROOT OF A NUMBER.

HELPFUL EXAMPLES

$\sqrt{9}$	$\sqrt{25}$	$\sqrt{81}$
$3 \times 3 = 9$, so $\sqrt{9} = 3$	$5 \times 5 = 25$, so $\sqrt{25} = 5$	$9 \times 9 = 81$, so $\sqrt{81} = 9$

Find the positive square root of each number.

11. $\sqrt{64}$ **8**   12. $\sqrt{169}$ **13**   13. $\sqrt{400}$ **20**   14. $\sqrt{49}$ **7**

15. $\sqrt{225}$ **15**   16. $\sqrt{484}$ **22**   17. $\sqrt{16}$ **4**   18. $\sqrt{361}$ **19**

Solve the word problem.

19. Hank's square yard has an area of 100 square meters. He wants to place a new fence around the outside of the entire yard. How many meters of fence will he need?   **40 meters**