## Squares, Square Roots and Perfect Squares

Term	Definition
Square	The product of a number and itself (the product of 6 and 6 is 36) Ex: $6 \times 6 = 6^2 = 36$
Square Root	One of two EQUAL factors of a number Ex: The square root of 9 is 3 ($\sqrt{9} = 3$) because 3 x 3 = 9
Radical Sign	$\sqrt{}$: the symbol used to indicate the square root of a number
Perfect Square	A number whose square root is a whole number Ex: 16 is a perfect square because $\sqrt{16} = 4$ 4 is a whole number (not a decimal/fraction)!

Perfect Squares

$2 \times 2 = 4$

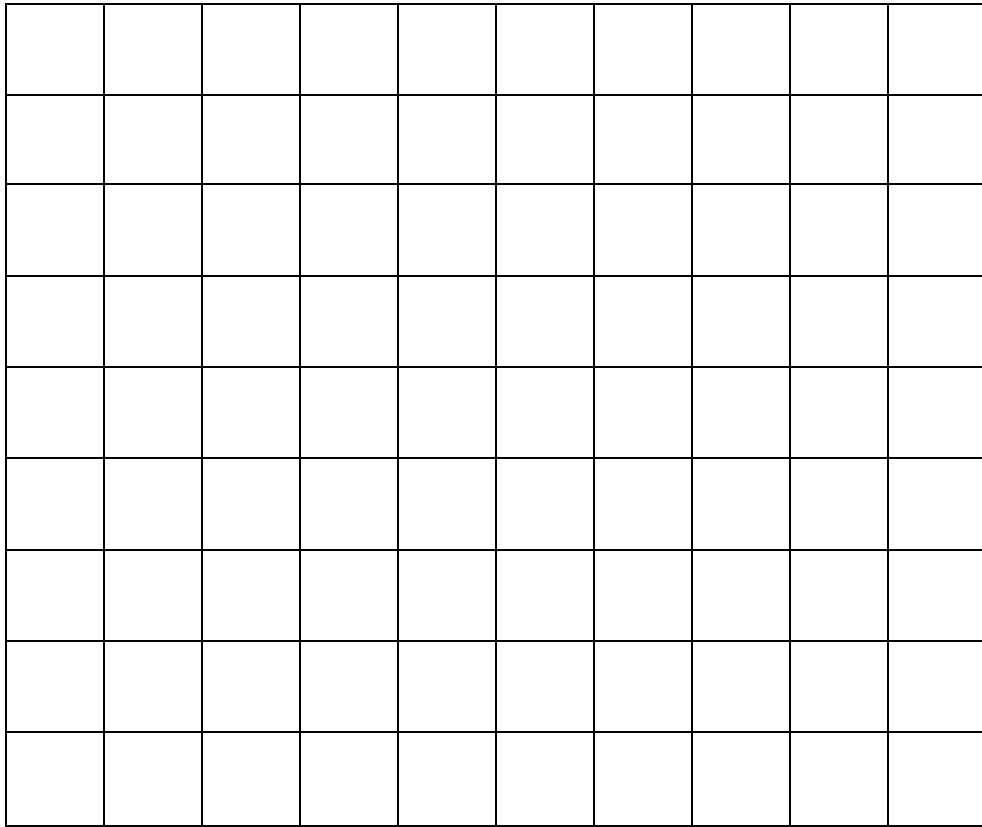$3 \times 3 = 9$

$4 \times 4 = 16$
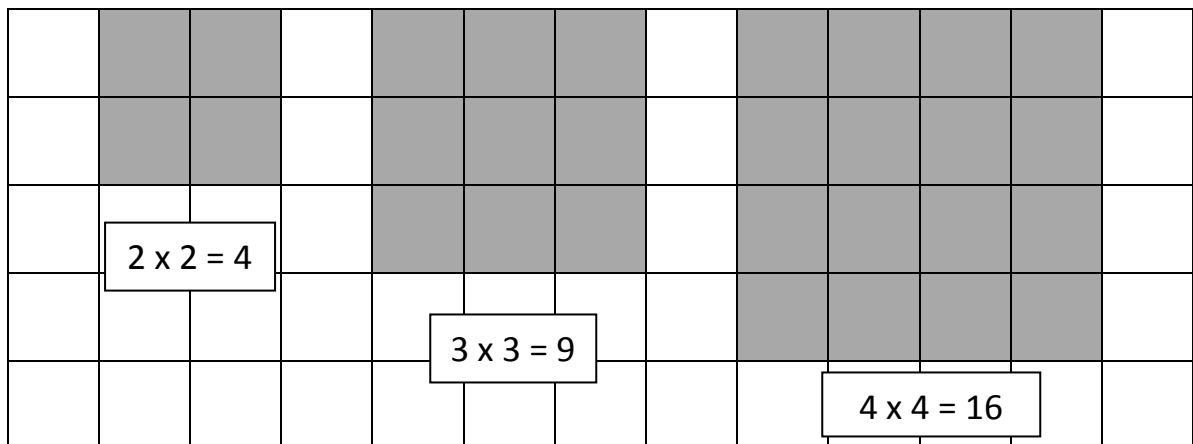
Are the shaded portions squares? _____ Why? _____

Examples of Perfect Squares:

1) 4 is a perfect square because $2 \times 2 =$ _____

2) 9 is a perfect square because $3 \times$ _____ $= 9$

3) 16 is a perfect square because _____ $\times$ _____ $= 16$

Using this grid, color a perfect square larger than 16.

Why is your drawing a perfect square? Why?

Perfect Squares:

$1^2 =$	$6^2 =$	$11^2 =$	$16^2 =$
$2^2 =$	$7^2 =$	$12^2 =$	$17^2 =$
$3^2 =$	$8^2 =$	$13^2 =$	$18^2 =$
$4^2 =$	$9^2 =$	$14^2 =$	$19^2 =$
$5^2 =$	$10^2 =$	$15^2 =$	$20^2 =$

11-1 Practice: Skills

Squares and Square Roots

Find the square of each number.

1. 3

2. 22

3. 25

4. 24

5. 35

6. 26

7. 37

8. 50

Find each square root.

9. $\sqrt{25}$

10. $\sqrt{100}$

11. $\sqrt{441}$

12. $\sqrt{900}$

13. $\sqrt{961}$

14. $\sqrt{784}$

15. $\sqrt{3{,}600}$

16. $\sqrt{1{,}936}$

17. What is the square of -37?

18. Find both square roots of 4,900.

19. Square 7.2.

20. Square 4.5.