

NAME \_\_\_\_\_ DATE \_\_\_\_\_ PER. \_\_\_\_\_

## REVIEW #20: RADICALS

Simplify.

1.  $\sqrt{50} =$  \_\_\_\_\_

2.  $2\sqrt{96} =$  \_\_\_\_\_

3.  $\sqrt{361} =$  \_\_\_\_\_

4.  $\sqrt{325a^6b^7} =$  \_\_\_\_\_

5.  $5a^3b^2\sqrt{98a^2b^9} =$  \_\_\_\_\_

6.  $4\sqrt{125x^{13}y^7} =$  \_\_\_\_\_

7.  $2\sqrt{6} - 9\sqrt{6} =$  \_\_\_\_\_

8.  $3\sqrt{5} + 6\sqrt{2} - 3\sqrt{2} + \sqrt{5} =$  \_\_\_\_\_

9.  $3\sqrt{45} + 7\sqrt{36} =$  \_\_\_\_\_

10.  $4\sqrt{63} - 3\sqrt{32} =$  \_\_\_\_\_

11.  $\sqrt{363x^3y^2z} =$  \_\_\_\_\_

12.  $\sqrt{324} - 3\sqrt{225} =$  \_\_\_\_\_

13.  $\sqrt{48} - \sqrt{12} =$  \_\_\_\_\_

14.  $4\sqrt{2} - 6\sqrt{72} + 8\sqrt{50} =$  \_\_\_\_\_

15.  $3m^2n\sqrt{168m^3n^2} =$  \_\_\_\_\_

16.  $\sqrt{425} =$  \_\_\_\_\_

**REVIEW. SHOW WORK ON ALL PROBLEMS.**

17. Write the equation of a line that has a slope of 6 and contains the point  $(-3, 7)$ .

18. Write the equation of a line that goes through the points  $(1, -8)$  and  $(3, 0)$ .

19. Write the equation that passes through  $(-9, 9)$  and is perpendicular to  $y = 3x - 5$ .

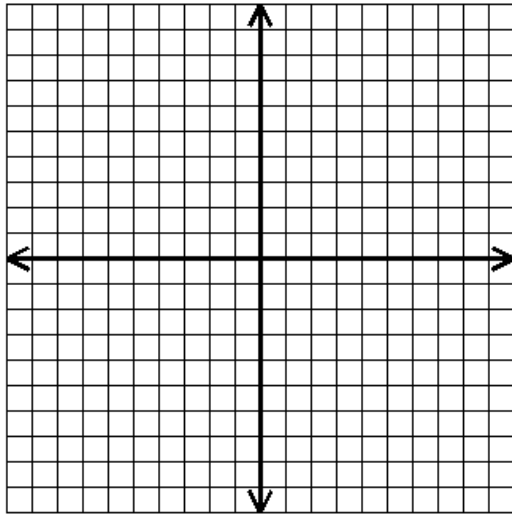
20. What is the x-intercept of  $2x - 4y = 16$ ?

21. What is the rate of change of the function  $y = 7$ ?

What is the rate of change of the function  $x = -3$ ?

22. Write the equation of a line that is parallel to  $y = \frac{2}{3}x - 5$  and goes through the point  $(-3, 2)$ .

23. Graph the line that represents the equation:  
 $4x - 5y = 15$



Slope: \_\_\_\_\_

y-intercept: \_\_\_\_\_

24. Solve the following for x:

$$5 - (2x - 7) = 2(4x + 9)$$

25. What value of x satisfies the following equation?

$$-3 + 6(x + 1) = 21$$

**Answers in random order:**

$\frac{4}{5}$	Undefined	$y = -\frac{1}{3}x + 6$	(0, -3)	$5x^6y^3\sqrt{5xy}$	$-\frac{3}{5}$
$9\sqrt{5} + 42$	$y = 6x + 25$	$-7\sqrt{6}$	$5a^3b^3\sqrt{13b}$	$5\sqrt{17}$	0
$4\sqrt{5} + 3\sqrt{2}$	$6m^3n^2\sqrt{42m}$	(8, 0)	$2\sqrt{3}$	$y = 4x - 12$	$y = \frac{2}{3}x + 4$
$8\sqrt{6}$	$5\sqrt{2}$	$35a^4b^6\sqrt{2b}$	$12\sqrt{7} - 12\sqrt{2}$	$8\sqrt{2}$	19
$11xy\sqrt{3xz}$	3	-27	<b>Study, study, study! Good luck!</b>		