

Algebra Review #21 *SHOW HOW YOU SOLVED EACH PROBLEM*

1. Solve the following if $r = -4$ and $t = -2$

$$\frac{rt - \sqrt[3]{rt}}{-r - t}$$

2. If $f(x) = x^3 - x^2$, find the range if the domain is $\{-1,0,1\}$.

3. Tell whether the equation has one, none, or infinite solutions:

$$-5(x - 2) = 12 - (5x + 2)$$

4. Find the slope of the line which passes through $(-4,8)$ and $(-3,8)$.

NAME _____

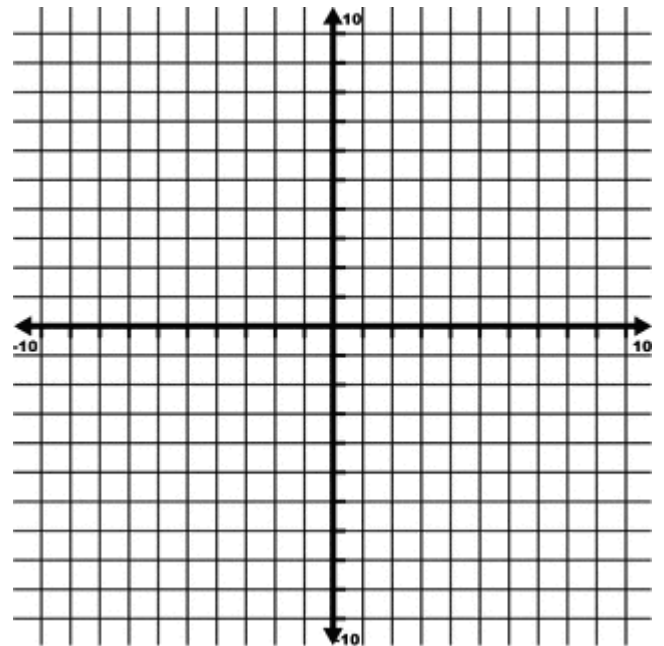
5. Find the slope and the y-intercept from the following equation (remember, the equation must be in $y=mx+b$ form).

$$8x - 2y = 12$$

Slope: _____ Y-intercept: _____

6. Draw a graph of the equation

$$y = \frac{3}{2}x - 3$$



What is the domain? What is the range?

What is the slope? What is the y-intercept?

7. What is the value of the following:

$$3\sqrt{112} - \sqrt{28}$$

8. What is the value of the following:

$$\sqrt{14} \cdot \sqrt{21}$$

9. Which property of equality is illustrated in the following statement:

If $3x = y$ and $y = 4x - 5$ then $3x = 4x - 5$.

10. Solve for a.

$$\frac{a + 2dr}{r} = 4d$$