

Algebra Review #25 SHOW HOW YOU SOLVED EACH PROBLEM

1. Evaluate the following:
If $d = -4$ and $h = 6$,

$$4d^2 + |dh|$$

2. If $f(x) = -x^2 + 2x + 1$ and the domain is $\{-2, -1, 0, 1, 2\}$ what is the range?

3. List each property shown below:

Step	Reason
$-10 = 2(3x - 5)$	Given
$-10 = 6x - 10$	
$0 = 6x$	
$0 = x$	
$x = 0$	

NAME _____

4. Write the equation of a line that passes through $(4, 6)$ and $(2, -2)$ in slope-intercept form.

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

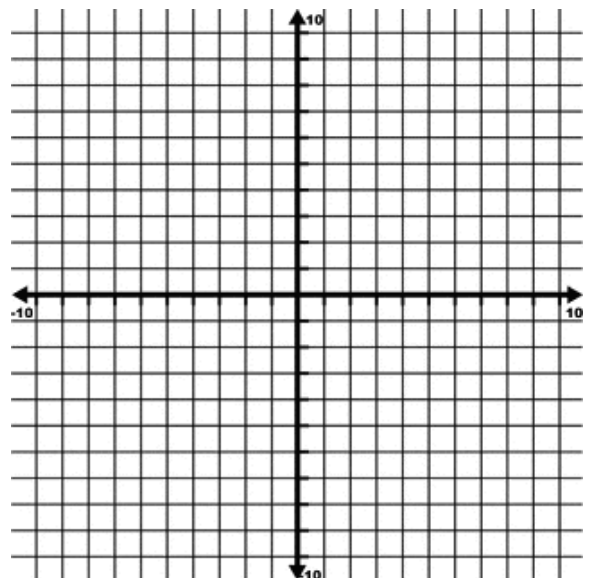
$$3x - 3y = 15$$

Slope: _____ Y-intercept: _____

6. Draw a graph of the equation

$$y = -\frac{1}{2}x - 3$$

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



7. What is the value of the following:

$$2\sqrt{40} - 10\sqrt{90}$$

8. A bumper sticker company conducted a survey of household members and then number of cars that household owns. They recorded their data. What would be the equation of the line of best fit for the following set of data? (Use Desmos)

Household members	Cars
1	2
2	3
3	5
5	6
8	5

9. Solve for x:

What is the solution to the following equation?

$$\frac{2x}{5} - 4 = -20$$

10. Solve for h.

$$A = \frac{1}{2}bh$$