Algebra Review #31 ***SHOW HOW YOU SOLVED EACH PROBLEM***

NAME _____

1.
Janet jogs to the gym and burns 435 calories. When she arrives at the gym, she jumps in the pool and begins swimming laps. She burns 10 calories per lap. Write an equation to model the total number of calories, c, Janet burned in her workout if she swam p laps.

A c = 10p – 435

B c = 10p + 435

C c = $\frac{p}{10}$ – 435

D c = $\frac{p}{10}$ + 435

2. If the domain of a function is {-1,0,1,5} what is the range.

$f(x) = -10x^2 - 6$

3. Solve:

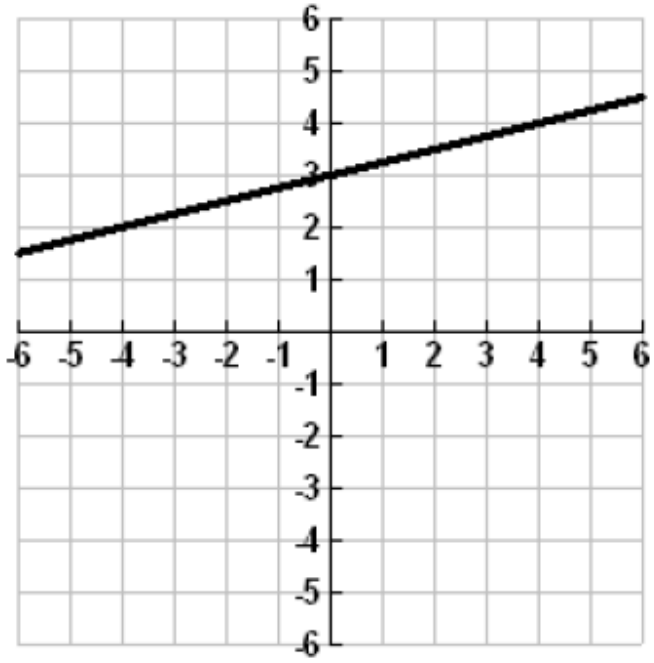
$$4p - 10 = p + 3p - 2p$$

4.
Find the slope of a line that passes through the points $(1, 5)$ and $(2, 8)$.

5. Model the following polynomial:

$$3x^2 + 5x + 2$$

6. Write an equation for the graph shown below:



7. Write in simplest form:

$$\sqrt{50a^2b^8c^3d^9}$$

8. Michael buys two bags of chips and three boxes of pretzels for $5.13. He then buys another bag of chips and two more boxes of pretzels for $3.09. Find the cost of each bag of chips and each box of pretzels.

9. Simplify using the laws of exponents, if x ≠ 0.

$$\frac{(2^0x^4)^{-3}}{x}$$

10. (Hint: Think about how to solve a proportion.)

$$\text{Solve for } x\text{: } \frac{(x-2)}{8} = \frac{3}{10}$$