

Key point: Function notation is for example:

$$f(x) = 3x + 2$$

$f(4)$ is asking you what is the y value when x is equal to 4

You do this by substituting the 4 in for x ...this can be done on your calculator

$$F(\text{dog}) = 3(\text{dog}) + 2$$

We substituted "dog" in for the x . this is showing that you understand substitution.

Name _____
Date _____

Advanced Algebra
Unit 2: Families of Functions
Homework #4

1. How does the graph of $y = f(x-3)$ compare with the graph of $y = f(x)$? A short answer will be fine.

2. If $f(x) = -2x$, find the following:

a. $f(x+3)$	b) $-3 + f(x-2)$	c) $5 + f(x+1)$
answer:	answer:	answer:

3) If $f(28) = 32$, what is the ordered pair that you would graph on the coordinate plane?

4) Solve the following equations:

a) $2(x+4) = 38$

b) $7 + \frac{1}{2}(x-3) = 21$

c) $0 = 4(x-3)^2 - 38$ (there should be two answers!)

$$d) 0 = 3(x-3)^3 + 58$$

$$e) 0 = 2|x - 5| - 18$$

$$f) 0 = 5(x - 6)^{\frac{1}{2}} - 3$$

$$g) 0 = 3(x - 8)^{\frac{1}{3}} + 4$$

I can sketch a graph of a function:

Find the x and y intercepts of the following and make a sketch

$$y = 4(x-8)^2 - 12$$

