Are you ready for Algebra II? Name:_____

1.) Given the function, find the outputs (fill in the table of values). What type of function is this?

$$y = \frac{3}{4}x + 4$$

x	y
0	
$\frac{1}{2}$	
1	

2.) Given the function, find the outputs (fill in the table of values). What type of function is this?

$$y = 2(5)^x$$

x	y
-1	
0	
1	
2	

3.) Solve the equation for x.

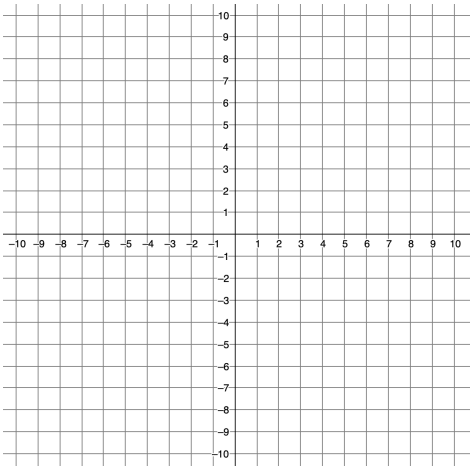
$$2 - 5x = 3(x + 1)$$

4.) Solve the equation for x.

$$3 = \frac{x + 2}{5}$$

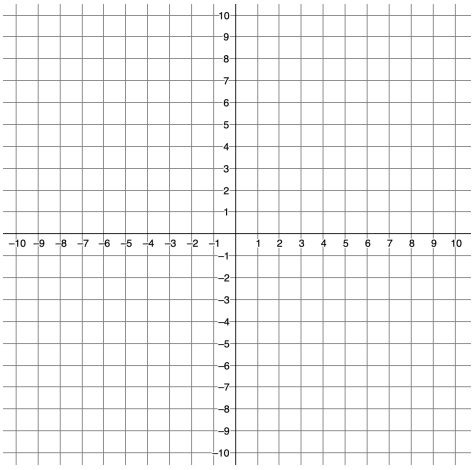
5.) Graph the function.

$$y = \frac{2}{5}x - 3$$



6.) Graph the function.

$$y = x^2 + 2x - 3$$



7.) Expand the binomial.

$$(x+3)^2$$

8.) Multiply the binomials and simplify.

$$(3x-1)(5x-2)$$

9.) Solve for x by factoring.

$x^2 - 8x + 7 = 0$

10.) Solve using the square root property.

$x^2 - 16 = 0$

11.) Solve by factoring.

$$4x^2 - 12x = 0$$

12.) Solve using the quadratic formula.

$$2x^2 + x - 10 = 0$$

13.) Simplify.

$$n^5m^3 \cdot n^2m$$

14.) Simplify.

$$\frac{x^3y^{10}}{xy^{12}}$$

15.) Simplify.

$$\sqrt{16x^2y^4z^8}$$

16.) Simplify.

$$\frac{x^2+2x+1}{x+1}$$

17.) Explain the pattern you see.

1, 3, 5, 7, 9, …

18.) Find the 50^{th} term.

19.) Explain the relationship you see.
1, 2, 4, 8, …

20.) Find the 50^{th} term.