Graphing Test **Name**_____

1. Explain & describe the Cartesian Coordinate plane system. {A complete diagram would be an excellent place to start followed by a statement explaining how to plot (-3, 5) }

2. Define Relation:

What are the four ways to display a relation?

a.

b.

c.

d.

3. Write an equation from the table.

X	Y
-4	-13
-2	-5
0	3
2	11
4	19

3. Write an equation from the table.

X	Y
-10	-11
-5	-7
0	-3
5	1
10	5

4. Write an equation from the table.

X	Y
-3	18
-1	8
1	-2
3	-12
5	-22

5. Draw a **mapping** and create a **table of values** (T- Chart) for the relation.
H = {(-4 , 1) , (-2 , 3) , (0 , 1) , (2 , 3) , (4 , 1)}

6a. State the domain and range for problem 5

6b. Is the relation a function

Given **f (x) = 5x - 2** **g (x) = $2x^2 + 3x$**

7. f (3) 7._____

8. g (2) 8._____

9. f (-3) 9._____

10. g (-1) 10._____

11. f (0) 11._____

12. g ($t - 3$) 12._____

13. f (t + 4) + g ($t - 2$) 13._____

Slope Intercept form equations

Solve each of these equations for y (e.g. $y = \frac{2}{3}x + 5$, or y = 7x - 5)

14. $4x + 2y = 12$ 14._____

15. $9x + 27y = 81$ 15._____

16. $6 + 11x - 5y = 9x - 3y + 4$ 16._____

17. $30 - 6y = 12x$ 17._____

18. $(y + 3) = -\frac{2}{5}(x - 10)$ 18._____

Standard Form Equation

Put each equation in the $Ax + By = C$

19. $y = \frac{2}{5}x - 3$ 19._____

20. $y = -\frac{1}{2}x - 7$ 20._____

21. $(y + 3) = -\frac{2}{5}(x - 10)$ 21._____

Write the equation in both standard and slope intercept form.

1. $(5,-2)$
   $(10,-3)$

   Standard_____

   Slope Int_____

2. $(-3,3)$
   $(-6,5)$

   Standard_____

   Slope Int_____

3. $(-1,3)$
   $m = \frac{-3}{4}$

   Standard_____

   Slope Int_____

4. $(2,5)$
   $m = \frac{1}{4}$

   Standard_____

Write each equation in standard form

5. $y = \frac{3}{4}x - 2$ Standard_____

6. $y = \frac{-2}{7}x + 3$ Standard_____

Write each equation in slope intercept form

7. $2x - 5y = 10$ Slope Int_____

8. $7x + 4y = 12$ Slope Int_____

Write the slope, y intercept as an ordered pair, and x intercept as an ordered pair

9. $2x + 3y = -6$ m = _____ y - int = _____ x - int = _____

10. $x - 5y = 15$ m = _____ y - int = _____ x - int = _____

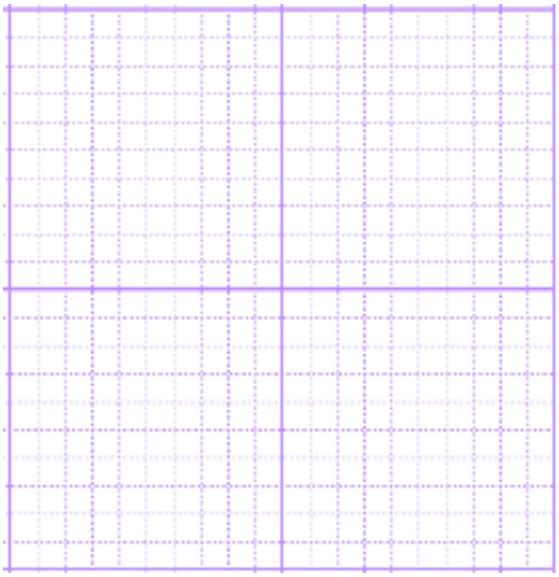
11. $y = \frac{2}{3}x - 7$ m = _____ y - int = _____ x - int = _____

12. $y = \frac{-3}{4}x + 2$ m = _____ y - int = _____ x - int = _____

Graph Each of the following

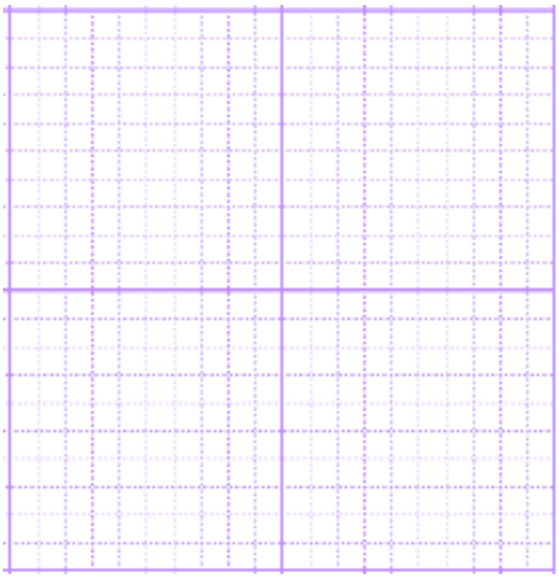
13. $y = \frac{3}{5}x - 2$ m = _____ goes "up or down" _____ y - int = _____

x	y



14. $3x - 2y = 6$ m = _____ goes "up or down" _____ y - int = _____

x	y



15. $y = \frac{-1}{3}x + 7$ m = _____ goes "up or down" _____ y - int = _____

x	y