Family of Functions Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Linear, Absolute Value, and Rate of Change Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Hour\_\_\_\_

Test Review

Be able to graph an equation in standard form (Ax+ By = C) by rewriting in slope intercept form and by finding the x and y intercepts.

 Graph each equation by rewriting in slope intercept form. (SHOW WORK!!) (y = mx + b)

1) 8x + y = -4 2) 3x + 2y = -10



Graph each equation by **finding the x and y intercepts**

3) 2x + 3y = 12 4) 5y – 10x = 30

 5) Find the slope between (5,2) and (2, -3) 6) Find the slope between(12,-2) and (-2, -4)

Write the domain and range using interval notation. Determine if it is a function.

7)

Domain:\_\_\_\_\_\_\_\_\_\_\_

Range:\_\_\_\_\_\_\_\_\_\_\_\_

Function:\_\_\_\_\_\_\_\_\_\_

8)

Domain:\_\_\_\_\_\_\_\_\_\_\_

Range:\_\_\_\_\_\_\_\_\_\_\_\_

Function:\_\_\_\_\_\_\_\_\_\_

9) y = $\left|x-2 \right|$ - 1



Describe the translations that occurred:



10) y = $-\left|x+1 \right|$ + 3



Describe the translations that occurred:

11) Write the equation for the translation of y = $\left|x\right|$.

Equation=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12) Write the equation for the translation of y = $\left|x\right|$.



Equation=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13) Write the equation that is the translation of y = $\left|x\right|$ left 1 unit and up 2 units.

Equation=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14) Look at the graph of f(x) = x2 + 1. What is the average rate of change

 between$\left[-1,2\right]$?



Average rate of change=\_\_\_\_\_\_\_\_\_\_\_

15) Look at the graph of f(x) = x2 +6x + 10. What is the average rate of change

 between $\left[-5,-3\right]$?

Average rate of change=\_\_\_\_\_\_\_\_\_\_\_

 16) Look at the table below. What is the average rate of change between $\left[-1,2\right]$?



Average rate

of change=\_\_\_\_\_\_\_\_\_\_\_

 17) Look at the table below. What is the average rate of change between $\left[-2,2\right]$?

Average rate

of change=\_\_\_\_\_\_\_\_\_\_\_

18) Consider the function y = x2+3. What is the average rate of change between$\left[2,4\right]$?

Average rate

of change=\_\_\_\_\_\_\_\_\_\_\_

19) Consider the function y = -x2+3. What is the average rate of change between$\left[2,4\right]$?

Average rate

of change=\_\_\_\_\_\_\_\_\_\_\_

 20) Find the slope of the line 2x + 5y = 10 slope =\_\_\_\_\_\_\_\_\_\_

 21) Find the slope of the line x + 2y = 12 slope = \_\_\_\_\_\_\_\_\_\_