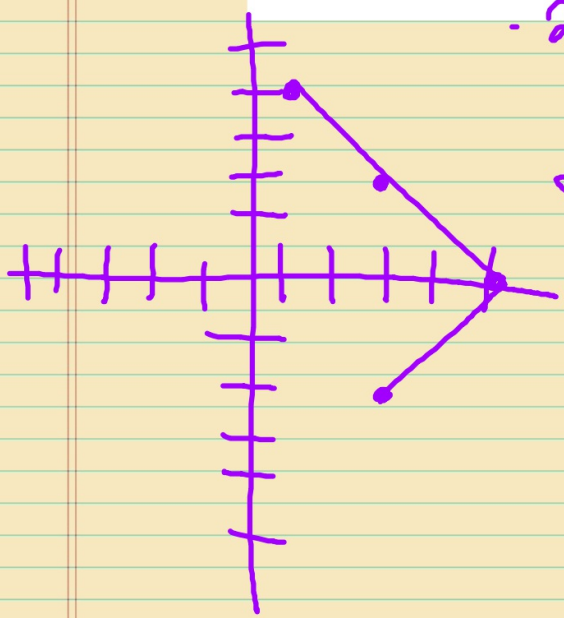


1.

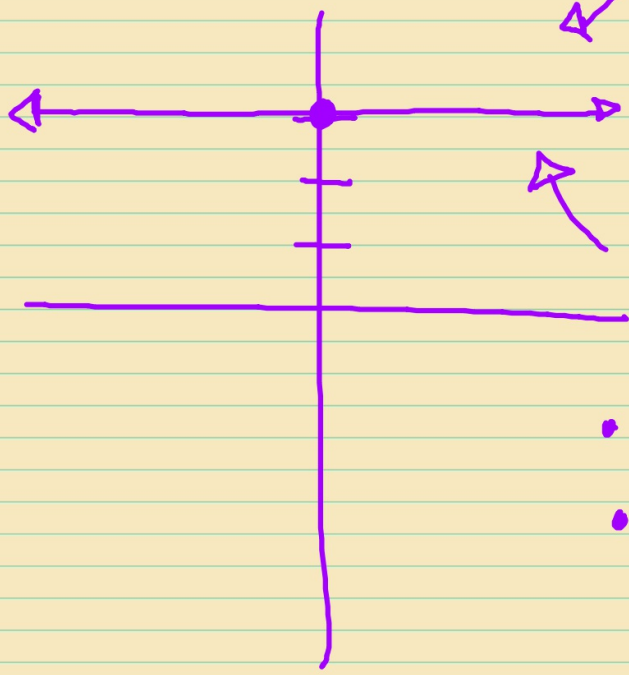
x	1	3	5	3
y	4	2	0	-2

Not  
function



NonLinear

$$y = 3$$



zero slope

Straight line

- Function
- Linear

$$\textcircled{3} \quad 2x - 5y = 10$$

Slope Form:  $-\frac{5y}{5} = \frac{-2x+10}{5}$

• Linear

• Function

$$\rightarrow y = -\frac{2}{5}x + 2$$

$$\textcircled{4} \quad \frac{5}{x} + y = -7$$

$$y = \frac{5}{x} - 7$$

• Not Linear =  $y = mx + b$

• Function

↖ NO  
Straight  
Line

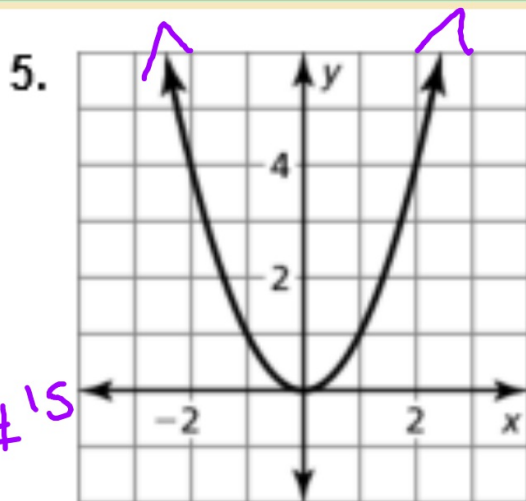
$$D = x$$

$$R = y$$

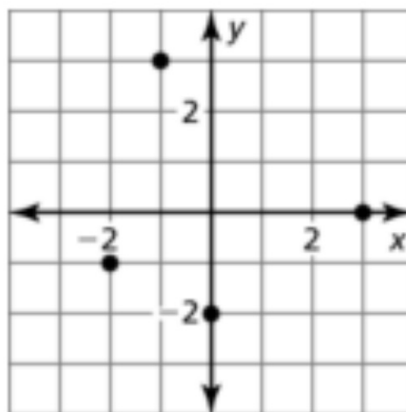
D = All real #'s

$$R = \geq 0$$

Continuous



6.



Discrete

$$D = -2, -1, 0, 3$$

$$R = -2, -1, 0, 3$$

Evaluate the function when  $x = -1, 0,$  and  $4.$

7.  $g(x) = 3x^2 + 1$

8.  $b(x) = -2x - 4$

9.  $h(x) = |-x + 5|$

$$g(-1) = 3(-1)^2 + 1$$
$$3 \cdot 1 + 1$$
$$3 + 1 = 4$$

$$g(0) = 3(0) + 1$$
$$0 + 1 = 1$$

$$g(4) = 3(4)^2 + 1$$
$$3(16) + 1$$
$$48 + 1 = 49$$

$$b(-1) = -2(-1) - 4$$
$$2 - 4 = -2$$

$$b(0) = -2(0) - 4$$
$$0 - 4 = -4$$

$$b(4) = -2(4) - 4$$
$$-8 - 4 = -12$$

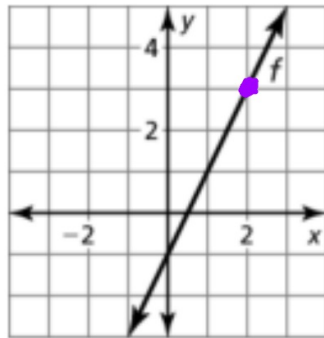
$$h(-1) = |-(-1) + 5|$$
$$|1 + 5|$$
$$6$$

$$h(0) = |-(-0) + 5|$$
$$5$$

$$h(4) = |-(-4) + 5|$$
$$1$$

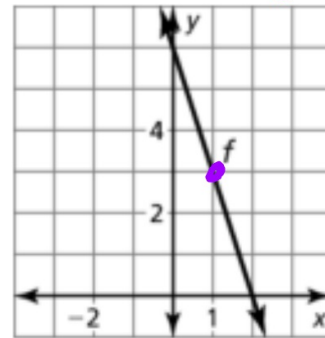
Find the value of  $x$  so that  $f(x) = 3.$

10.



$$y = 3$$
$$x = 2$$

11.



$$y = 3$$
$$x = 1$$

Find the x- and y-intercepts of the graph of the linear equation.

12.  $2x + 3y = 6$

$$2(0) + 3y = 6$$

$$3y = \frac{6}{3}$$

$$y = 2$$

$$2x + 3(0) = 6$$

$$2x = \frac{6}{2}$$

$$x = 3$$

13.  $-3x + 5y = -30$

$$-3(0) + 5y = -30$$

$$5y = \frac{-30}{5}$$

$$y = -6$$

$$-3x + 5(0) = -30$$

$$-3x = -30$$

$$x = 10$$

14.  $\frac{1}{2}x + y = -8$

$$\frac{1}{2}(0) + y = -8$$

$$y = -8$$

$$\frac{1}{2}x + 0 = -8$$

$$\frac{1}{2}x = -8$$

$$x = -16$$