

More Practice 'Cause I'm Mad

1. Find the x and y intercepts for the following:

a) $-3x + 4y + 12 = 0$

$$-3(0) + 4x + 12 = 0$$

$$\frac{4x}{4} = \frac{-12}{4}$$

$$x = -3$$

$$(0, -3)$$

$$-3x + 4(0) + 12 = 0$$

$$\frac{-3x}{-3} = \frac{-12}{-3}$$

$$x = 4$$

$$(4, 0)$$

b) $2x - 3y + 8 = 0$

$$2(0) - 3y + 8 = 0$$

$$\frac{-3y}{-3} = \frac{-8}{-3}$$

$$y = 8/3$$

$$(0, 8/3)$$

$$2x - 3(0) + 8 = 0$$

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

$$x = -4$$

$$(-4, 0)$$

2. What is the slope of a horizontal line? 0 vertical line? undefined

3. Find m, //m, \perp m for:

a) $y = \frac{5}{6}x + 2$

$$m = 5/6$$

$$//m = 5/6$$

$$\perp m = -6/5$$

b) $y = 4$

$$m = 0$$

$$//m = 0$$

$$\perp m = \text{undefined}$$

c) $x = 3$

$$m = \text{undefined}$$

$$//m = \text{undefined}$$

$$\perp m = 0$$

d) $3x + 4y + 8 = 0$

$$\frac{4y}{4} = \frac{-3x - 8}{4}$$

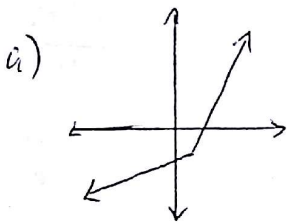
$$y = -\frac{3}{4}x - 2$$

$$m = -3/4$$

$$//m = -3/4$$

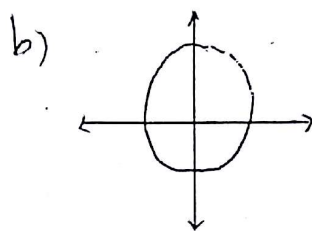
$$\perp m = 4/3$$

4. Are the following relations? functions?



Rel: Yes

Fcn: ~~No~~ Yes



Rel: Yes

Fcn: No

c) $\{(3,5)(2,0)(-1,7)(8,10)(-1,7)\}$

Rel: Yes

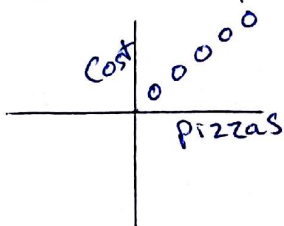
Fcn: Yes

d) $\{(2,3)(9,5)(-7,-1)(-3,5)(9,6)\}$

Rel: Yes

Fcn: No

5. Draw a function that is discrete.



6. Does the point (3,5) lie on the graph: $2x - 3y + 9 = 0$?

$$\begin{aligned}2(3) - 3(5) + 9 &= 0 \\6 - 15 + 9 &= 0 \\0 &= 0\end{aligned}$$

yes

7. Does the point (-7,1) lie on the graph: $-y + 13 = -2x$?

$$\begin{aligned}-1 + 13 &= -2(-7) \\-1 + 13 &= 14 \\+12 &= 14\end{aligned}$$

no

8. What is the equation of the x axis? $y = 0$

9. Given the point (-7,-3) what is the equation of the horizontal line passing through it? $y = -3$

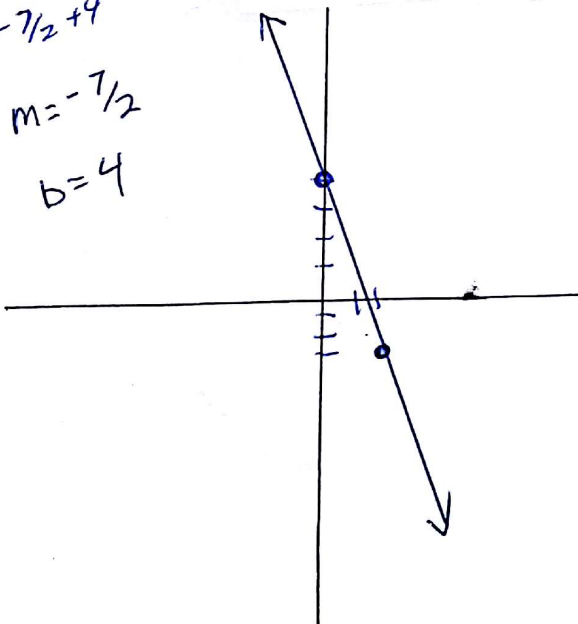
10. Graph:

a) $7x + 2y - 8 = 0$
(slope-intercept method)

$$\begin{aligned}\frac{2y}{2} &= \frac{-7x+8}{2} \\y &= -\frac{7}{2}x + 4\end{aligned}$$

$$m = -\frac{7}{2}$$

$$b = 4$$

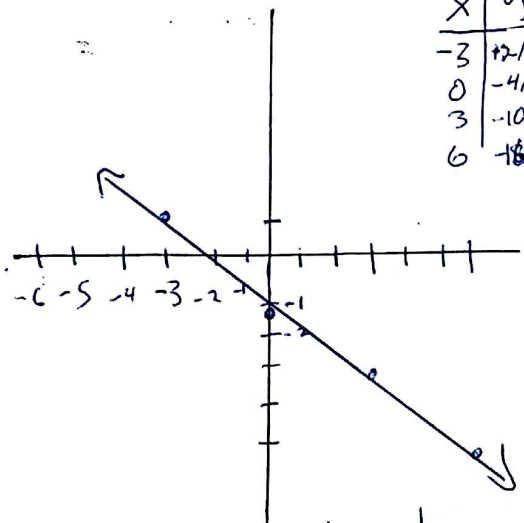


b) $2x + 3y + 4 = 0$

(table of values)

$$\frac{3y}{3} = \frac{-2x-4}{3} \Rightarrow y = -\frac{2}{3}x - \frac{4}{3}$$

x	y
-3	2/3
0	-4/3
3	-10/3
6	-16/3



You won't get a bad TOV like this on test