

1C Interception

NO WORK, NO CREDIT. PENCIL ONLY.

Name _____ Per: _____

Find the y-intercept from the tables: Don't forget to list as a coordinate point. For EC, find x-intercepts.

1.

X	Y
2	7
0	1
5	16

2.

X	Y
1	-3
4	9
0	-7

EXAMPLE:

X	Y
2	5
-2	13
-6	21

$-4 <$ > 8

Slope = -2
 $y = -2x + b$
 $5 = -2(2) + b$
 $5 = -4 + b$
 $+4 = +4$
 $9 = b$
 y-intercept = (0, 9)

3.

X	Y
3	7
6	13
7	15

4.

X	Y
5	23
4	21
3	19

Find the slope and intercepts from the following points and then write the equation of the line that goes through the two given points.

- EX: (0, 1) and (2, 7) 5. (3, 6) and (0, 8) 6. (3, 7) and (6, 13) 7. (4, 8) and (2, 5)

X	Y
0	3
2	7

- Slope: $\frac{2}{1}$ or 2 Slope: _____ Slope: _____ Slope: _____
 y-intercept: (0, 3) y-intercept: _____ y-intercept: _____ y-intercept: _____
 x-intercept: $(-\frac{3}{2}, 0)$ x-intercept: _____ x-intercept: _____ x-intercept: _____
 Eq: $y = 2x + 3$ Eq: _____ Eq: _____ Eq: _____

Find the equation from the given point and slope.

- EX: Slope = 2 & point (6, 1) 8. $m = \frac{1}{2}$ & point (4, -2) 9. $m = -5$ & point $(\frac{1}{5}, 8)$
 $1 = 2(6) + b$
 $1 = 12 + b, \text{ so } b = -11$
 $y = 2x - 11$

Find the y-intercept and x-intercept of the following equations:

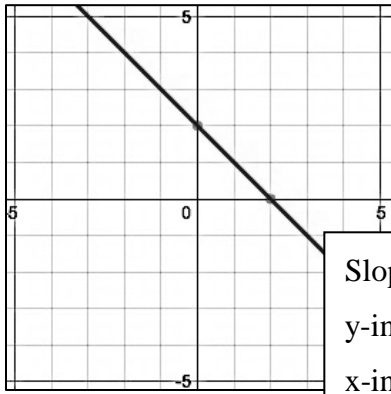
10. $y = -18 - 2x$ 11. $3x + 6 = y$
 y-intercept : _____ y-intercept : _____
 x-intercept : _____ x-intercept : _____
12. $3x + 5y = -15$ 13. $4x - 12y = 16$ 14. $8y + 6x = 2$
 y-intercept : _____ y-intercept : _____ y-intercept : _____
 x-intercept : _____ x-intercept : _____ x-intercept : _____

EXAMPLE:

$6x + y = -3$	$6x + y = -3$
y-intercept is when $x = 0$,	x-intercept is when $y = 0$,
$6(0) + y = -3$	$6x + (0) = -3$
$y = -3$	$6x = -3, x = -\frac{1}{2}$
(0, -3)	$(-\frac{1}{2}, 0)$

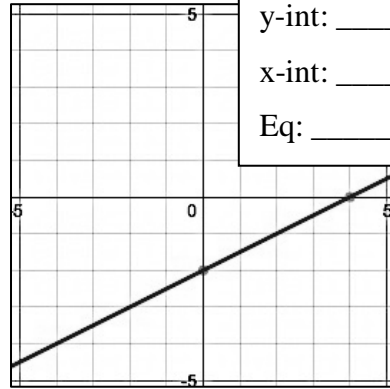
Find the slope, y-intercept and equation of the line in the following graphs:

15.



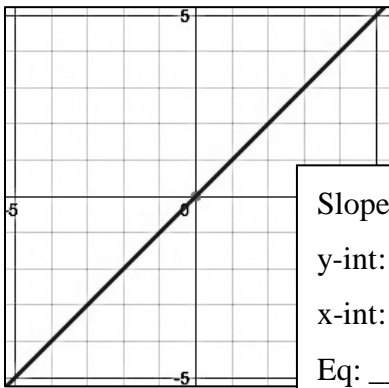
Slope: _____
 y-int: _____
 x-int: _____
 Eq: _____

16.



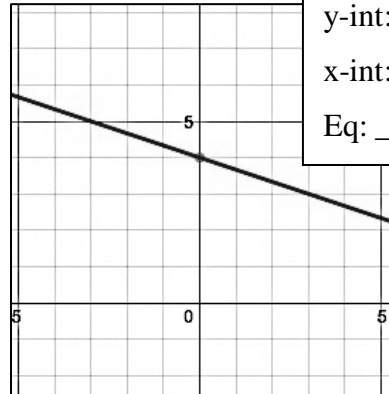
Slope: _____
 y-int: _____
 x-int: _____
 Eq: _____

17.



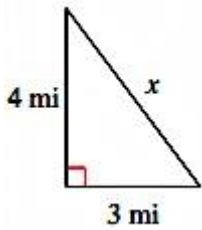
Slope: _____
 y-int: _____
 x-int: _____
 Eq: _____

18.

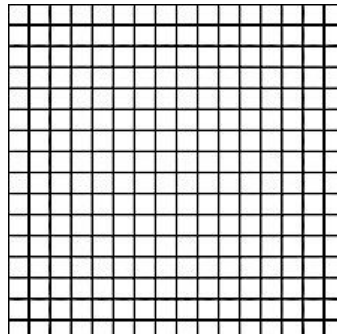


Slope: _____
 y-int: _____
 x-int: _____
 Eq: _____

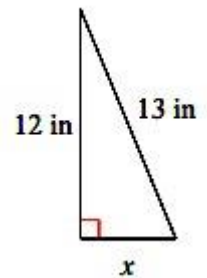
19. Find the **slope** of line x .



20. Plot #19 on the grid and **draw the squares** to find the length of the hypotenuse.

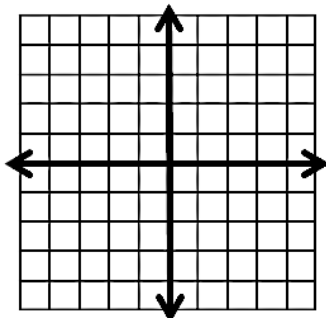


21. Find the **length** of x .



For #22 and #23, graph 2 equations each on the coordinate grids.

22. $y = -\frac{3}{2}x + 4$
 $y = \frac{2}{3}x + 1$



23. $y = -2x - 2$
 $y = -2x + 1$

