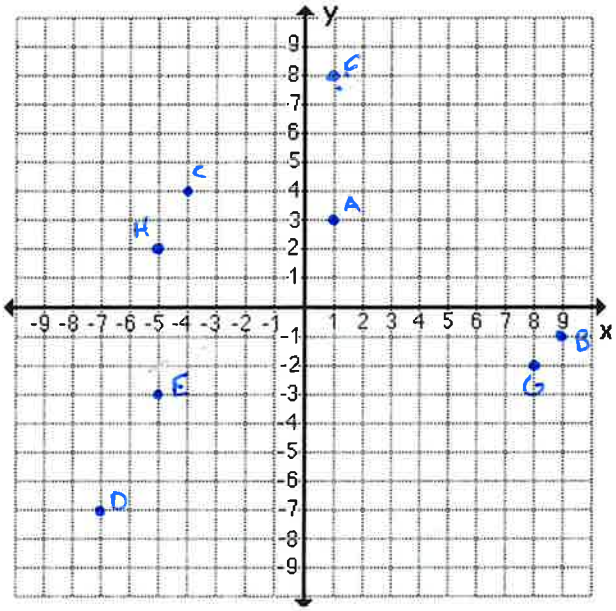
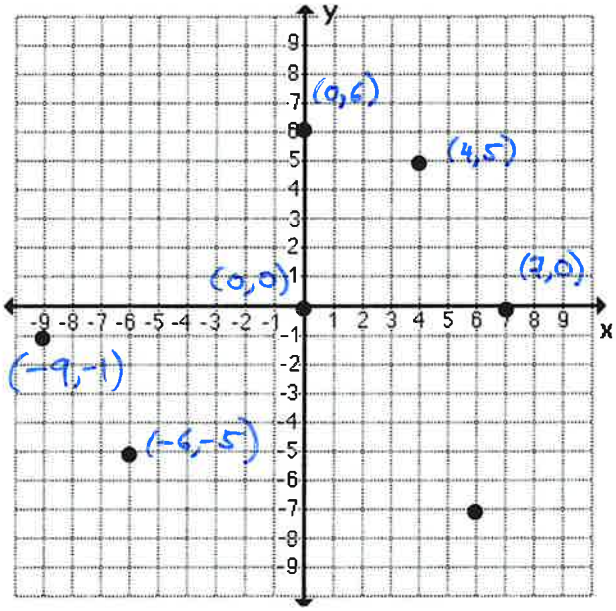
Section 7.1a – Practice Questions

1. Map the following Coordinate (x, y) on the 2-D plane (GRID)

$A\ (1,3)$ $B\ (9,-1)$
$C\ (-4,4)$ $D\ (-7,-7)$
$E\ (-5,-3)$ $F(1,8)$
$G\ (8,-2)$ $H(-5,2)$



2. Identify the Coordinates of the given points



3. What does it mean to be a solution to an equation with respect to coordinates (x, y) of a point?

OMIT

It means the equation which represents the line goes through the point with the given coordinates.

but good for next section

4. What is the $y - intercept$? What is the $\boldsymbol{x - coordinate}$ of every $y - intercept\ point$? Example?

where the graph crosses the y-axis ; x-coor is 0 ; (0,5)

5. What is the $x - intercept$? What is the $\boldsymbol{y - coordinate}$ of every $x - intercept\ point$? Example?

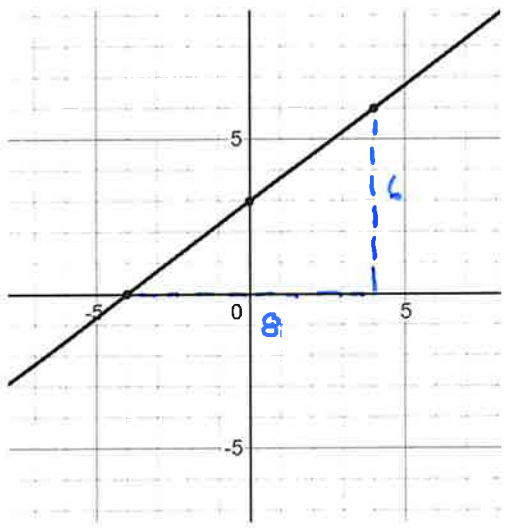
where the graph crosses the x-axis ; y-coor is 0 ; (5,0)

6. For the sake of our Math Vocabulary then:

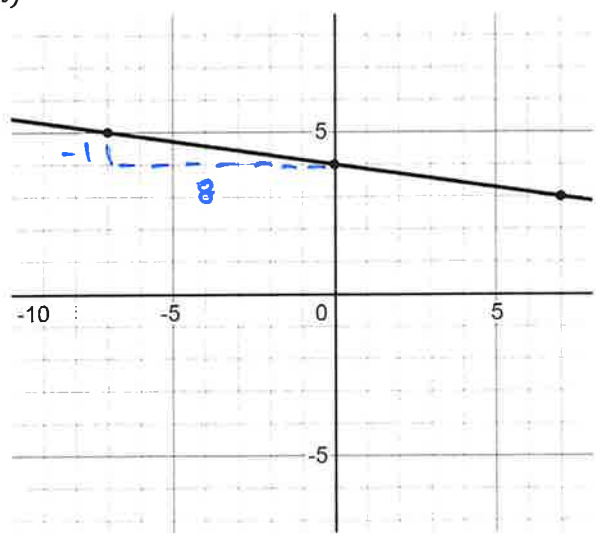
SLOPE = $\frac{\text{change in height}}{\text{change in length}}$ = $\frac{\text{RISE}}{\text{RUN}}$

7. What is the **SLOPE** and **Y-INTERCEPT** of the following lines?

i)



ii)



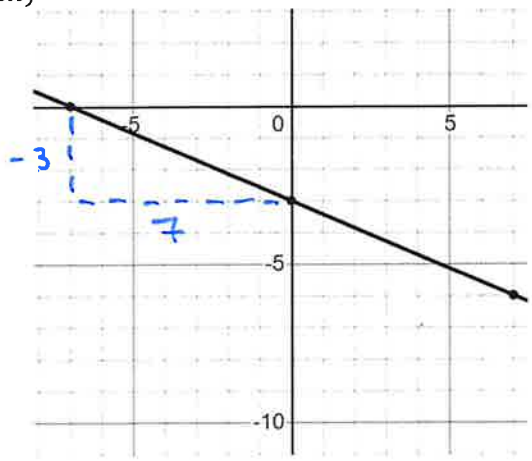
$Slope$ = $6/8 = 3/4$

$y - int\ (as\ ordered\ pairs)$ = (0,3)

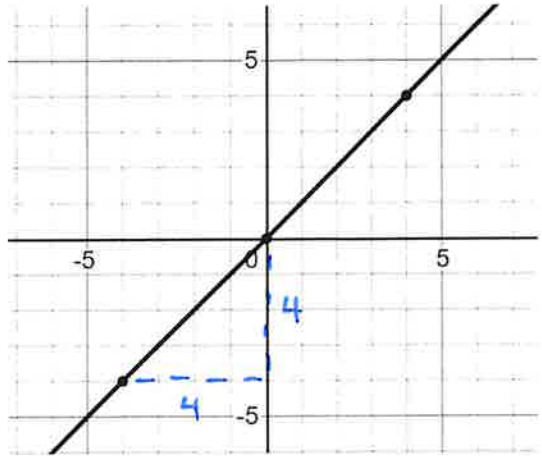
$Slope$ = $-1/8$

$y - int\ (as\ ordered\ pairs)$ = (0,4)

iii)



iv)



$Slope = -3/7$

$y - int\ (as\ ordered\ pairs) = (0,-3)$

$Slope = 4/4 = 1$

$y - int\ (as\ ordered\ pairs) = (0,0)$

8. Using the slope formula, what is the Slope of the line that connects the following points on a given line?

$\frac{y_2-y_1}{x_2-x_1}$

a) $(3,4)$ *and* $(-1,7)$

$\frac{7-4}{-1-3} = \frac{3}{-4} = \boxed{-3/4}$

b) $(4,0)$ *and* $(5,6)$

$\frac{6-0}{5-4} = \frac{6}{1} = \boxed{6}$

c) $(-7,5)$ *and* $(-7,8)$

$\frac{8-5}{-7-(-7)} = \frac{3}{0} \rightarrow \boxed{\text{undefined}}$

d) $(1,6)$ *and* $(-3,-5)$

$\frac{-5-6}{-3-1} = \frac{-11}{-4} = \boxed{\frac{11}{4}}$

e) $(3,6)$ *and* $(-7,6)$

$\frac{6-6}{-7-3} = \frac{0}{-10} = \boxed{0}$

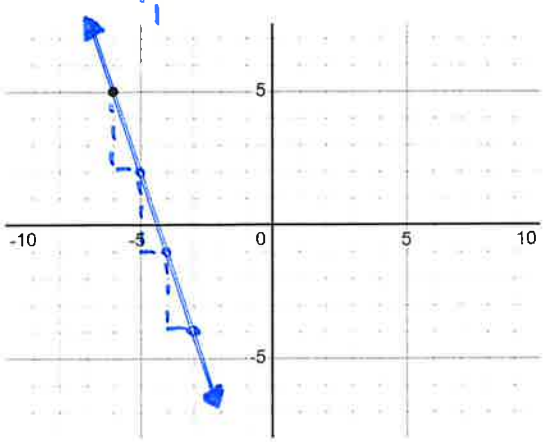
f) $(-2,7)$ *and* $(10,5)$

$\frac{5-7}{10-(-2)} = \frac{-2}{12} = \boxed{-\frac{1}{6}}$

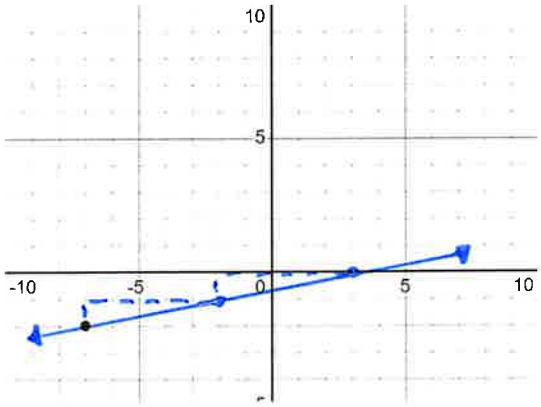
Map the line starting at the provided point and using the given slope

$\frac{\text{RISE}}{\text{RUN}}$

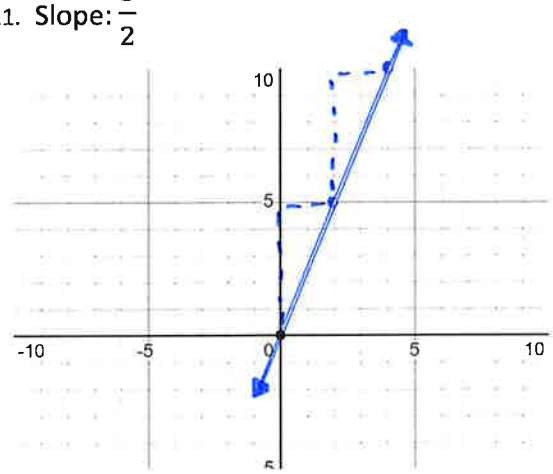
9. Slope: -3 $\frac{-3}{1}$



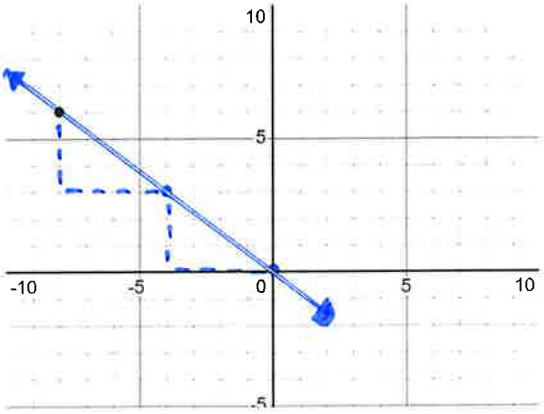
10. Slope: $\frac{1}{5}$



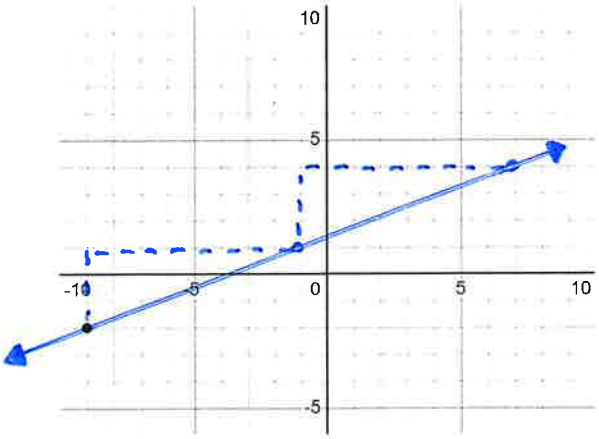
11. Slope: $\frac{5}{2}$



12. Slope: $-\frac{3}{4}$



13. Slope: $\frac{3}{8}$



14. Slope: $-\frac{7}{3}$