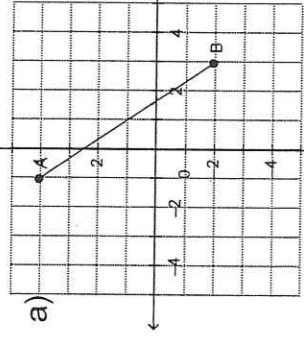
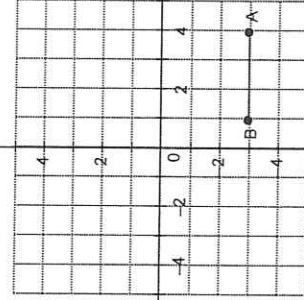


Leave slopes as fully simplified fractions where appropriate.

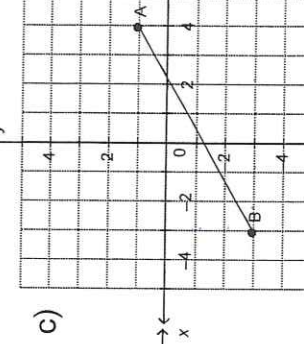
1. Determine the slope of each of the following line segments



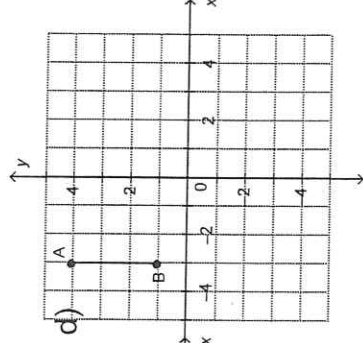
a) $\frac{-6}{4} = -\frac{3}{2}$



b) 0



c) $\frac{4}{7}$



d) undefined

2. Determine the slope of the line passing through each of the following pairs of points.

a) A(3, 6) and B(7, 10)

a) $\frac{4}{4} = 1$

b) C(2, -3) and D(-2, 5)

b) $\frac{8}{-4} = -2$

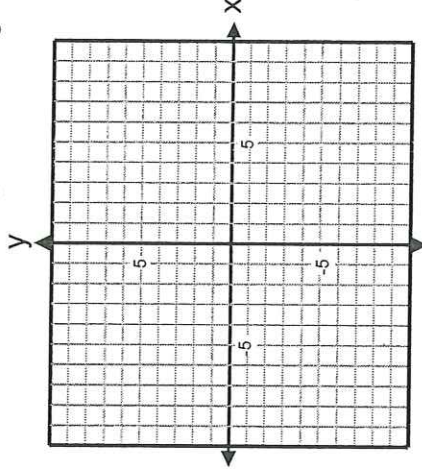
3. Draw and label line segments with each of the following slopes on the grid below.

a) $\frac{2}{3}$

b) $-\frac{3}{4}$

c) 2

d) 0



4. The slope of AB is $-\frac{2}{3}$. Determine the slope of a line that is

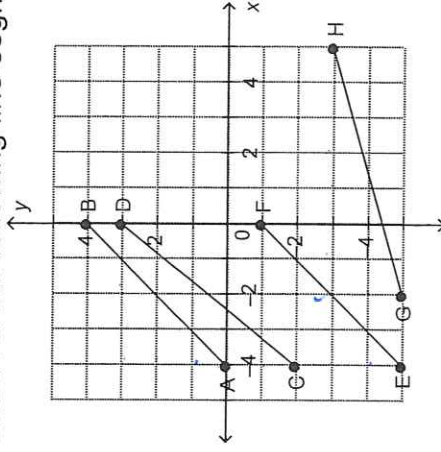
a) parallel to AB.

a) $-\frac{2}{3}$

b) perpendicular to AB.

b) $\frac{3}{2}$

5. Which of the following line segments are parallel? What are their slopes?



Parallel: AB and EF

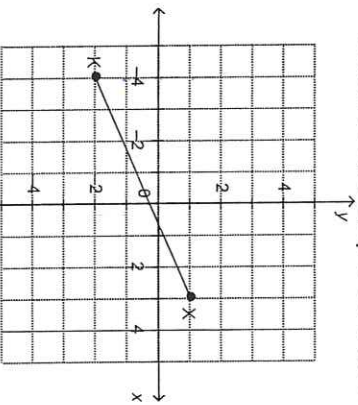
Slopes:
AB: 1

CD: $\frac{5}{4}$

EF: 1

GH: $\frac{2}{7}$

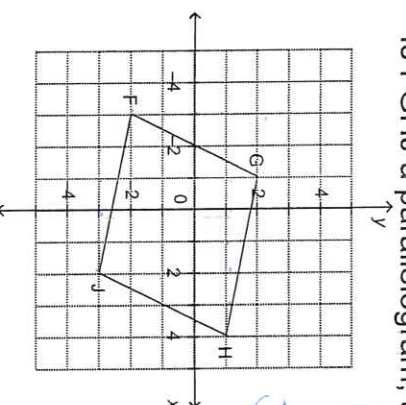
6. What is the slope of a line that is perpendicular to the line segment shown below?



$KX: \frac{3}{7}$

$-\frac{7}{3}$

7. Is FGHIJ a parallelogram, a rectangle, or neither? Explain.



$FG: 2$

$GH: -\frac{1}{5}$

$JH: 2$

$FJ: -\frac{1}{5}$

A parallelogram. Opposite sides are parallel, but not perpendicular.

8. Line segment AB has endpoints A(-4, -1) and B(-1, 5). Line segment CD has endpoints C(1, 1) and D(5, -1). Are AB and CD parallel, perpendicular, or neither? Explain.

$AB: \frac{b}{3} = 2$

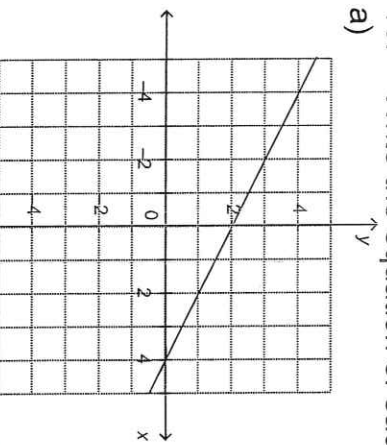
$CD = -\frac{2}{4} = -\frac{1}{2}$

perpendicular - slopes are neg. recip.

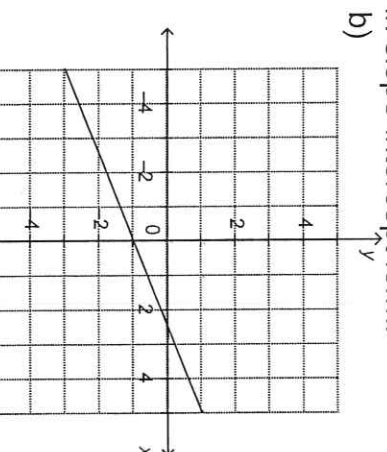
9. Write the equation of a line with a slope of -2 and a y-intercept of 5.

$y = -2x + 5$

10. Write the equation of each of the following lines in slope-intercept form.



a) $y = -\frac{1}{2}x + 2$



b) $y = \frac{2}{5}x - 1$

11. Graph and label the following lines on the grid. Label axes and scale.

a) $y = -4x - 1$

b) $y = \frac{3}{2}x + 2$

