

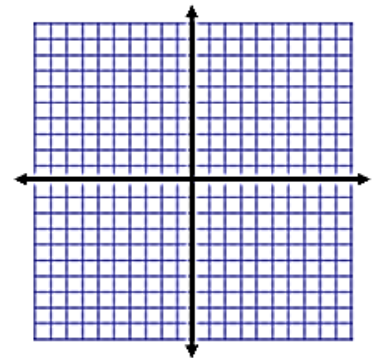
1. Write the equation of a line through $(-3, -4)$ and $(1, -8)$.

2. Write the equation of a line perpendicular to $y = \frac{1}{3}x - 5$ through the point $(-6, 1)$.

3a) What does perpendicular mean?

b) If I gave you the equation for two lines, how would you know if the lines were perpendicular?

c) Is the triangle with vertices at $A(-2, 3)$, $B(2, 0)$, $C(-1, -4)$ a right triangle? (Hint: Think about how the questions above could help you)



4. Determine the distance of AND the midpoint of the following segments.

a) A (-4,6) B (2,-3)

b) A (2,-1) B (-12,4)

Distance: _____

Distance: _____

Midpoint: _____

Midpoint: _____