# Linear Graphs Problems

1. Which of these points lie on the line $y = \frac{1}{3}x$?

   (3,1)  (3,0)  (0,0)  (-3,-1) (1,3) (2,6) (0,9) (0,3)
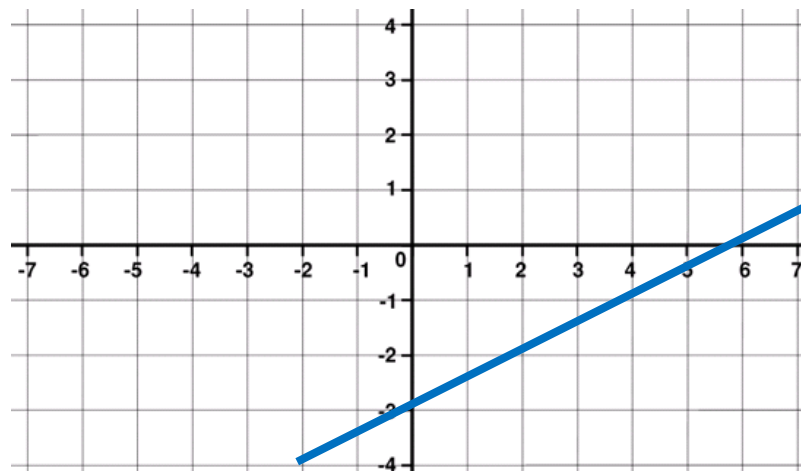
2. A line goes through the points (-1,-4) (0,0) and (2,8). Which of these is the equation of the line?

   Y = x + 6                y = x -3                y =4x

3. Determine the equation of the line drawn below:



4. Determine the equation of the line that passes through the points :

   a. (0,1) and (5,16)              b. (0,100) and (50,0)

5. A line has a gradient of -2 and passes through the point with coordinates (5,7). What is the equation of the line?

6. A triangle has corners at the points (1,2), (-2,3) and (0,-1). Determine the equations of the lines that form the sides of the triangle. Is the triangle right angled?

7. Which of the following graphs are parallel to $y = 2x + 5$?

   a) y = 2x + 2
   b) y = 5x + 2
   c) 2y = 4x + 2