1. Write the equation of the line that passes through this pair of points in both Point-Slope and Slope-Intercept Form.

$(6,17)\&(-3,2)$

$y-y_1=m(x-x_1)$

Point-Slope

$y-17=\frac{5}{3}(x-6)$

or

$y-2=\frac{5}{3}(x-6)$

Slope-Intercept

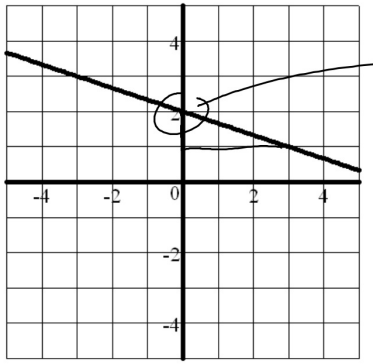
$y-2=\frac{5}{3}(x+3)$

$y-2=\frac{5}{3}x+5$

$+2 \quad -2$

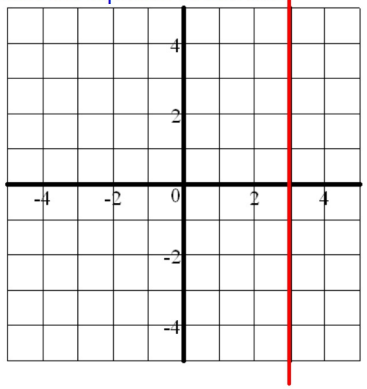
$y=\frac{5}{3}x+7$

Write the equation of each line.



Answer: $y=-\frac{1}{3}x+2$

Write the equation of this line.



EQ: $x=3$

Write the equation of this line.

Line passes through these points

(6, -1) & (-4, -1)

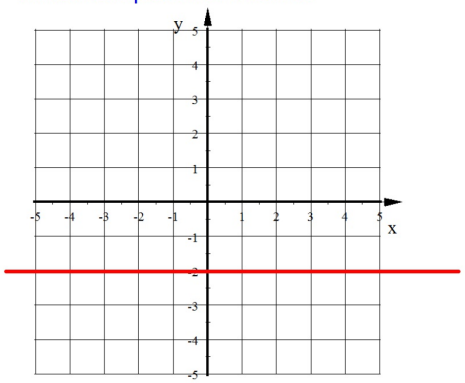
Answer: EQ: $y=-1$

Write the equation of this line.

Line has a slope of zero and passes through the point (15, -3)

EQ: $y=-3$

Write the equation of this line.



Answer

EQ:

$y=-2$

Write the equation of this line.

The slope of a line is undefined and it passes through the point (0,6)

Answer EQ: $x=0$

Write the equation of this line.

Line passes through these points

(1.5, 2) & $(\frac{3}{2}, -2)$

$\frac{3}{2} = 1.5$

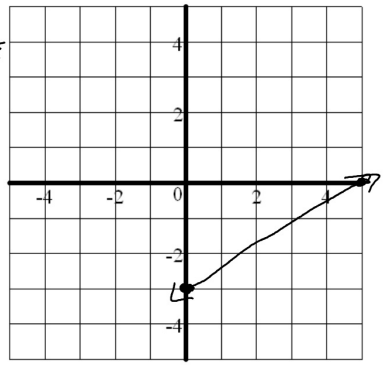
Answer EQ: $x = 1.5$

Graph each line.

a) $6x - 10y = 30$ $-6x \quad -6x$ $\frac{-10y}{-10} = \frac{30-6x}{-10}$ $y = -3 + \frac{3}{5}x$

Answer:

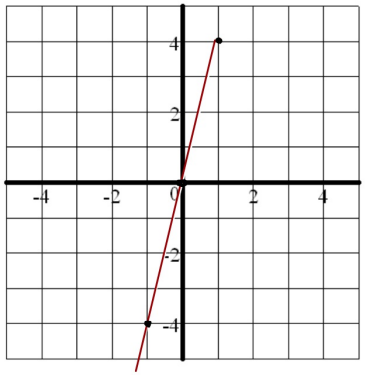
$y = -3 + \frac{3}{5}x$



Graph

b) $y = \frac{4x}{1}$

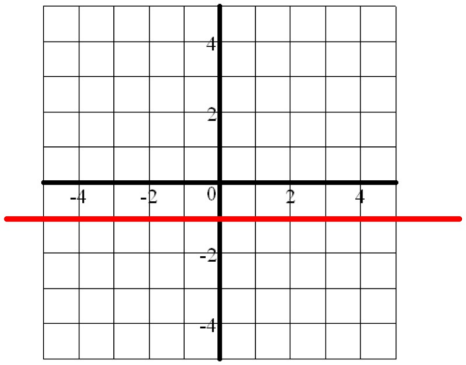
Answer:



Graph

c) $y = -1$

Answer:



4. Use this line: $y = 2x - 9$

a) Write the equation of the line that is parallel to this line and passes through $(-4, 9)$

$y - 9 = 2(x + 4)$

b) Write the equation of the line that is perpendicular to this line and passes through $(6, 1)$

$y - 1 = -\frac{1}{2}(x - 6)$