

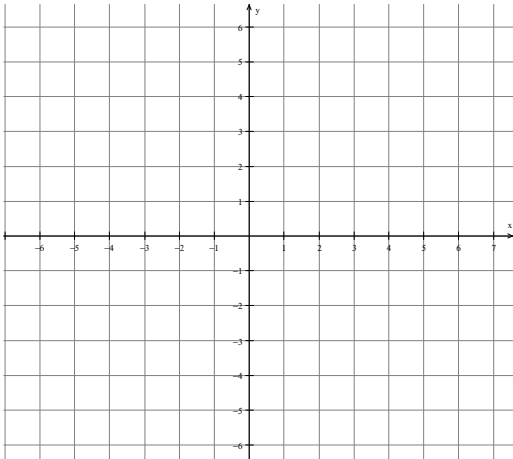
Horizontal & Vertical Lines

Horizontal Lines

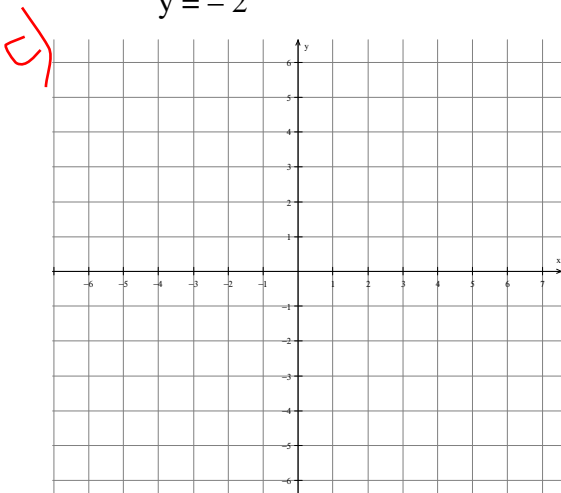
- They do not have an x-intercept
- They are parallel to the x-axis
- The slope is zero
- The equation is $y = b$

Represent graphically.

a) $y = 4$



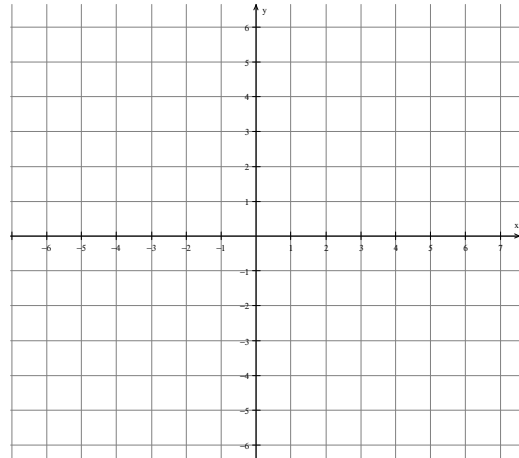
$y = -2$



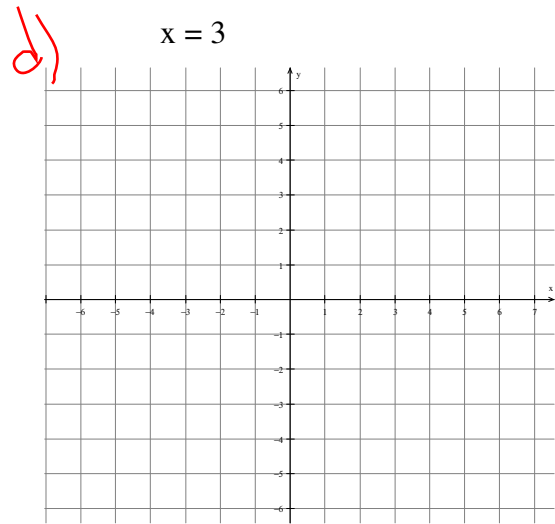
Vertical Lines

- They do not have a y-intercept
- They are parallel to the y-axis
- The slope is undefined
- The equation is $x = a$

b) $x = -3$



$x = 3$



2) Write the equation for each line.

a) The slope is zero and the point $(-4, 5)$ is on the line.

b) $m = 0$ and the point $(3, -7)$ is on the line.

c) The slope is undefined and the point $(6, -3)$ is on the line.

d) $m = \text{undefined}$ and the point $(-3, 8)$ is on the line.

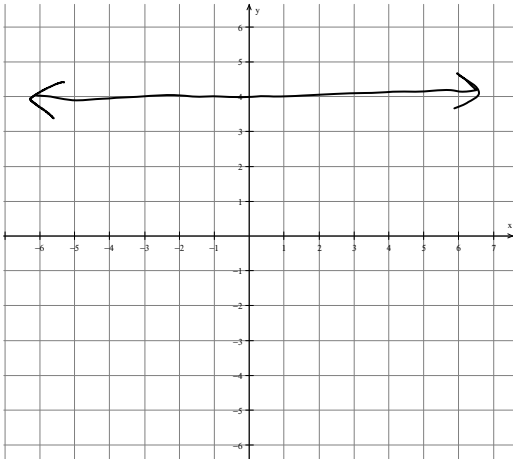
Horizontal & Vertical Lines

Horizontal Lines

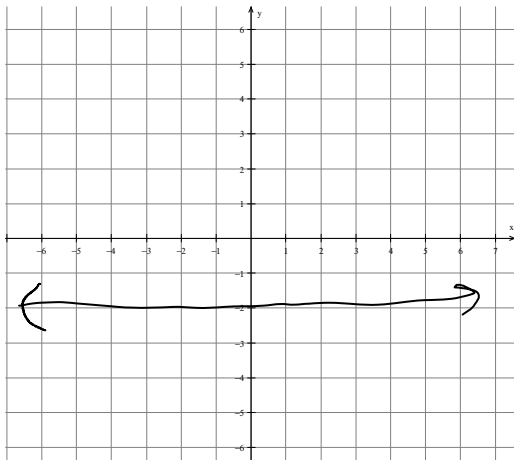
- They do not have an x-intercept
- They are parallel to the x-axis
- The slope is zero
- The equation is $y = b$

Represent graphically.

a) $y = 4$



$y = -2$



Write the equation for each line.

a) The slope is zero and the point $(-4, 5)$ is on the line.

Horizontal $y = ?$
 $y = 5$

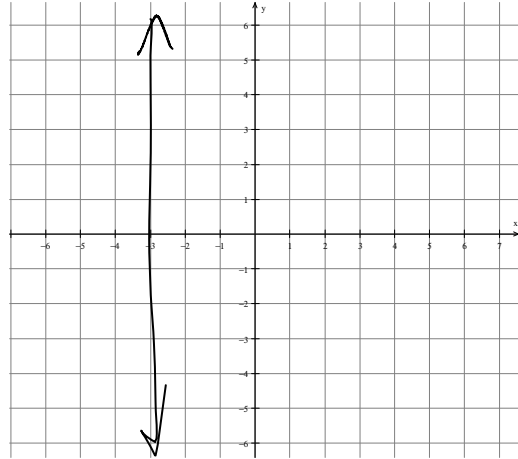
b) $m = 0$ and the point $(3, -7)$ is on the line.

$y = -7$

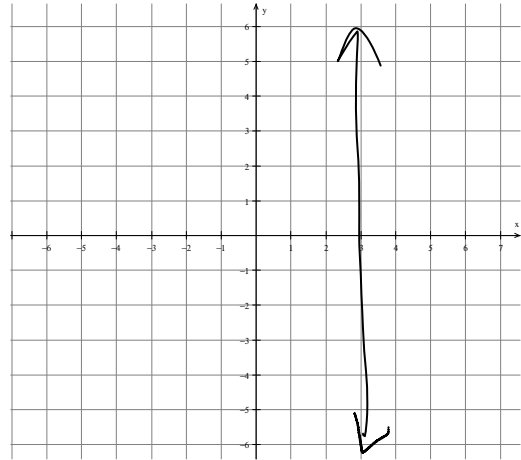
Vertical Lines

- They do not have a y-intercept
- They are parallel to the y-axis
- The slope is undefined
- The equation is $x = a$

b) $x = -3$



$x = 3$



c) The slope is undefined and the point $(6, -3)$ is on the line.

Vertical $x = ?$
 $x = 6$

d) $m = \text{undefined}$ and the point $(-3, 8)$ is on the line.

$x = -3$