

LINEAR FUNCTIONS: Zero ? X-Intercept ? Solution

Example

Let $f(x)$ be a Linear Function.

Let $f(x) = -3x + 6$

1) Zero of a linear function

Suppose $x = c$ is the **Zero** of $f(x)$
i.e. $f(c) = 0$

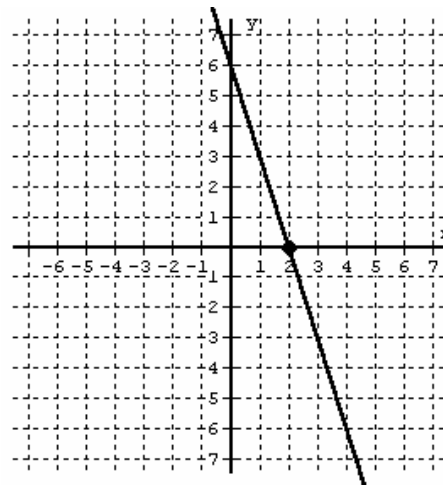
$$f(2) = -3(2) + 6 = -6 + 6 = 0$$

$\Rightarrow x = 2$ is the **Zero** of $f(x) = -3x + 6$

X	Y
-2	12
-1	9
0	6
1	3
2	0
3	-3
4	-6

2) X-Intercept of the graph of a linear function

$x = c$ is the **X-Intercept**
of the graph of $y = f(x)$



$x = 2$ is the **X - intercept**
of the graph of $y = -3x + 6$

3) Solve the equation: $f(x) = 0$

$x = c$ is the **Solution**
of the Equation $f(x) = 0$

$$f(x) = -3x + 6 = 0$$

$$-3x + 6 = 0$$

$$-3x = -6$$

$$x = 2$$

$\Rightarrow x = 2$ is the **Solution**
of the equation $-3x + 6 = 0$