4-3

Math 10FP

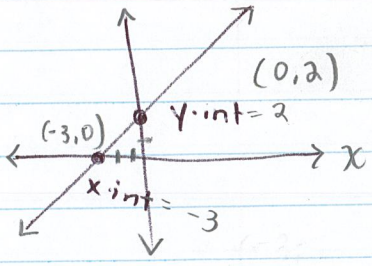
x + y Intercepts

① On a graph:

x-int - where the line / curve crosses the x-axis
- @ (x, 0)

y-int - where the line / curve crosses the y-axis
- @ (0, y)

* Just look @ the graph:



② In an Equation

x-int: sub. $y=0$ and solve for x

y-int: sub. $x=0$ and solve for y

Ex. Find x and y Intercepts.

a) $y = 0.5x - 1$

x-int ($y=0$) $0 = 0.5x - 1$
$+1 \quad +1$
$1 = 0.5x$
$\frac{1}{0.5} = \frac{0.5x}{0.5}$
$\boxed{2 = x} \rightarrow (2, 0)$

y-int ($x=0$) $y = 0.5(0) - 1$
$y = 0 - 1$
$\boxed{y = -1} \rightarrow (0, -1)$

b) $y = x^2 - 36$

x-int: $0 = x^2 - 36$
$+36 \quad +36$
$36 = x^2$ $x = \pm 6$ $(6, 0)$ $(-6, 0)$

y-int: $y = 0^2 - 36$
$y = -36$ $(0, -36)$

Hilroy