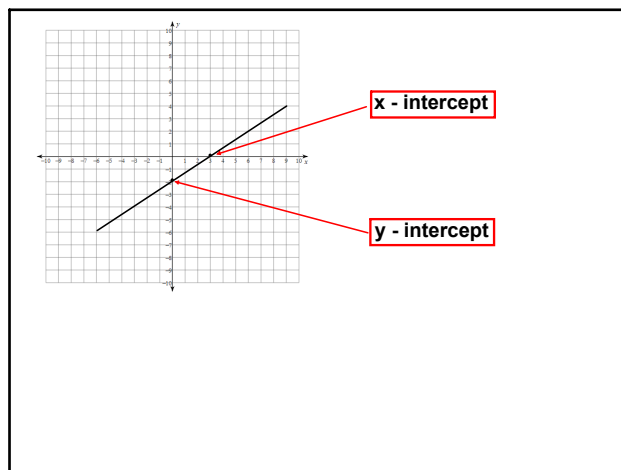Linear Functions

-x intercepts and y intercepts

-graphing functions using intercepts

The **x-intercept** of a function is the x-coordinate of the point where the graph of the function intersects the x-axis.

The y-**intercept** of a function is the y-coordinate of the point where the graph of the function intersects the y-axis.
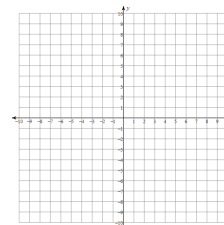

x - intercept
Coordinates: (_____,_____)

y - intercept
Coordinates: (_____,_____)
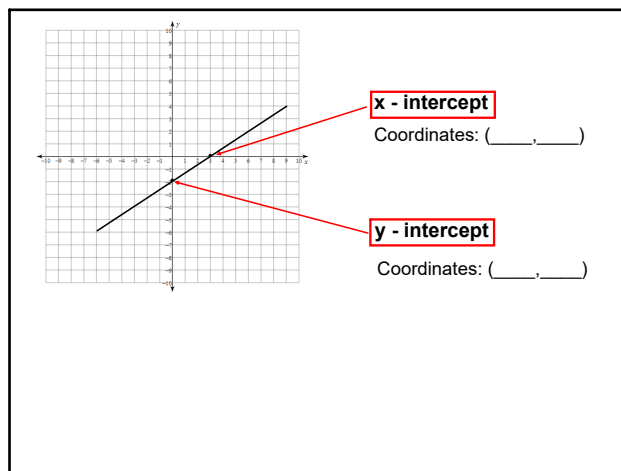
What is the y coordinate of the **x-intercept** ?

What is the x coordinate of the **y-intercept** ?

Consider the following function; how do you find the x- and y-intercepts?

y = 2x + 2

Find the x- and y- intercepts for each of the following:

y = -x + 10   y = 3x + 1
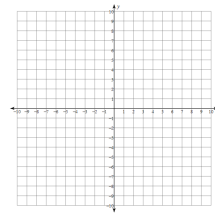
2y = 4x - 16   3y = 1/2x - 2

How can you use x- and y- intercepts to graph a line?

How many points do you need to draw a line?

Graph the following
function using intercepts:

y = 3x + 1

Determining slope and intercepts from a table:
-consider the function g(x) = -2x +10
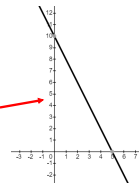-each of the following can be used to represent g(x)

x	0	2	5
g(x)	10	6	0

data table

x	g(x)
0	10
2	6
5	0

coordinate graph

t-chart

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x	-1.5	-1	0	5	10	12	20
f(x)	0	1	3	13	23	27	43

x - intercept: y - intercept: slope:

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x	0	2	4	6	8	9	10
f(x)	50	40	30	20	10	5	0

x - intercept: y - intercept: slope: