

2.1 Graphing Linear Relationships

How can you graph a linear relation?

1. Make a table of values
2. Find the x and y intercepts
3. Determine the slope and y-intercept ($y = mx + b$)

Ex. 1 Graph using a table of values

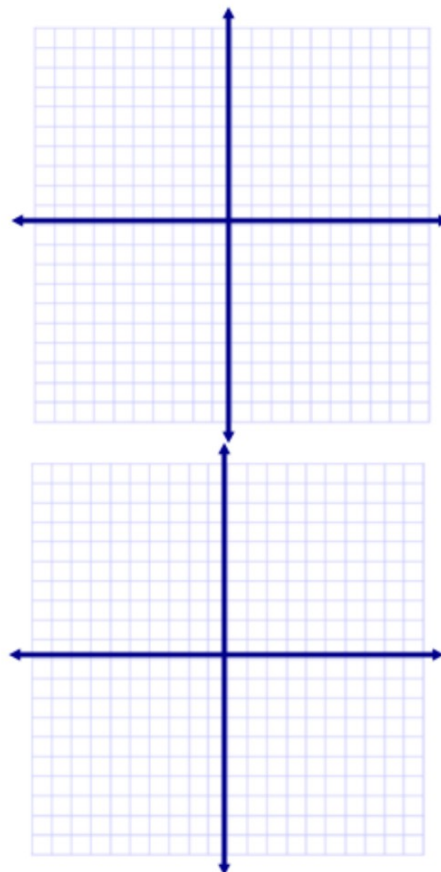
a) $y = -2x + 1$

x	y

b) $y = \frac{1}{2}x + 3$

Select x-values
that are
multiples
of 2 to avoid
fractions

x	y



Communication Errors

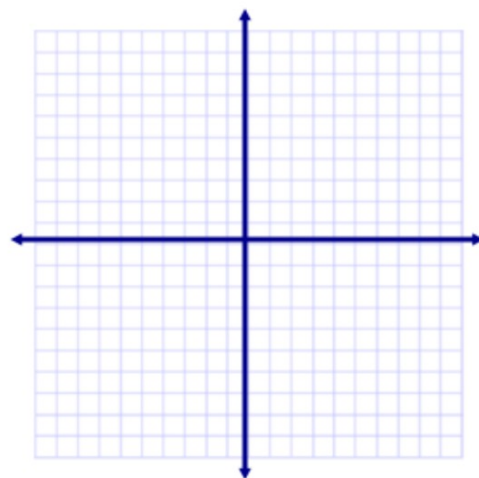
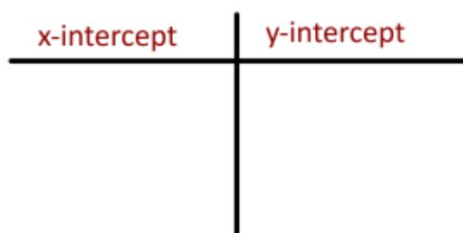
- Arrows on x and y-axes as well as the line
- Label the line
- Label axes
- Use a ruler and pencil
- Must show a scale

Ex. 2 Graph using x and y-intercepts

Why?

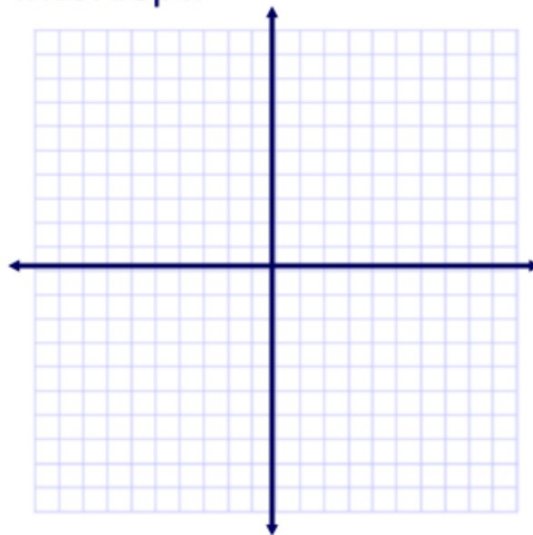
- at the x-intercept, $y = 0$
- at the y-intercept, $x = 0$

$$2x + 3y = 12$$



Ex. 3 Graph using the slope and y-intercept.

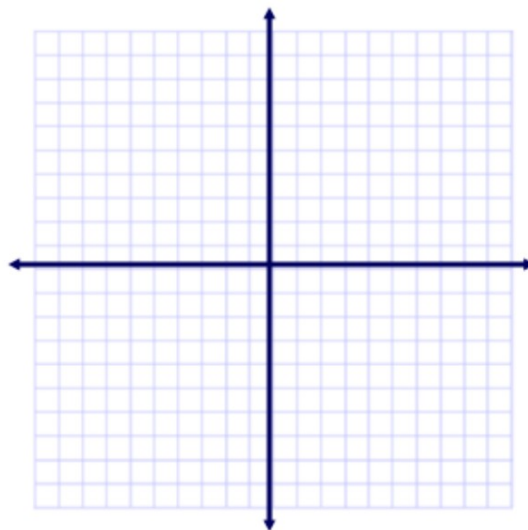
a) $y = -2x + 1$



b) $4x = 20 - 5y$



MUST rearrange
into the form
 $y = mx + b$

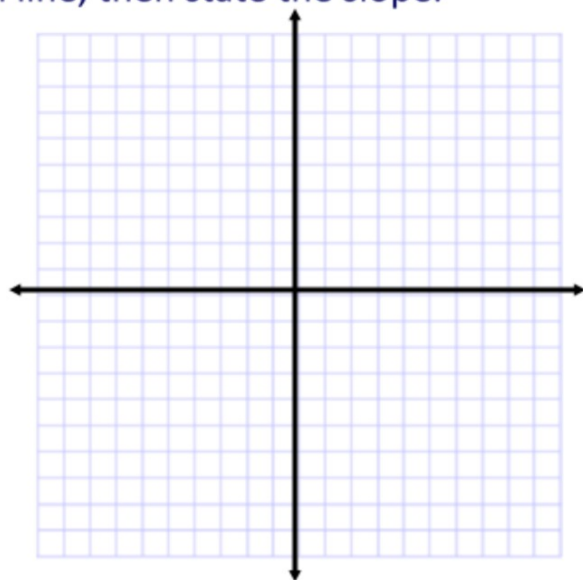


Special Cases

Ex. 4 Graph each line, then state the slope.

a) $y = 3$

b) $y = -2$



c) $x = 7$

d) $x = -5$

Practice!

Set 1: p. 5 #5a,6ab,7ab,8ac

Set 2: p. 5 #5d,6d,7bd,8ac