

### 9.3 Linear Relationships

[http://www.youtube.com/watch?v=sPPZO5iTIBw&feature=em-upload\\_owner](http://www.youtube.com/watch?v=sPPZO5iTIBw&feature=em-upload_owner)

You can graph a linear relation represent by a \_\_\_\_\_ or an \_\_\_\_\_.

First, make a table of values. Check that the values in the table are \_\_\_\_\_.

Then, graph using the \_\_\_\_\_ in the table.

Whenever possible, choose variable that are \_\_\_\_\_.

For example,  $h$  for height and  $t$  for temperature.

A \_\_\_\_\_ is a mathematical statement that represents the relationship between specific quantities.

An \_\_\_\_\_ is a mathematical statement with two expressions that have the same value. The two expressions are separated by an equal sign. For example:

$$x + 2 = 3$$

$$y - 7 = -4$$

$$3a - 2 = a + 2b$$

When choosing numbers for your table of values....

Choose at least 4 values

Check that they are reasonable  
(can it be a negative?)

It is often useful to have a  $x = 0$  value

Evaluate each equation using the given variable

$$y = 5x - 3 \text{ when } x = 3$$

$$y = -5x \text{ when } x = 10$$

Make a table of values for the equation and draw the graph

$$x = -2, 0, 2, 4$$

$$y = 3x + 2$$

