<u>Warm up:</u> Follow link to "Catch a Fly Game" on web-site (x , y) Then, graph the following ordered pairs on the grid below.

A (3, 1)

B (-4, 6)

C (-2, -3)

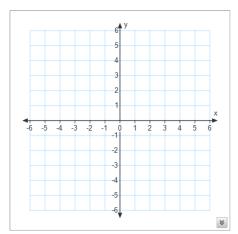
D (5, -6)

E(6, 0)

Remember:

An ordered pair is used to show the position on a graph, where the "x" (horizontal) value is _____, and the "y" (vertical) value is

(,)



To remember which is the y-axis, remember:
"y in the sky"...
the y-axis points up.

Terms:

Independent Variable:

The independent variable is plotted on the ____-axis. Dependent Variable:

The dependent variable is plotted on the ____-axis. Outlier:

<u>Example 1</u>: The following data shows the minimum stopping distances on wet asphalt at various speeds.

a) Identify the independent variable and dependent variable.

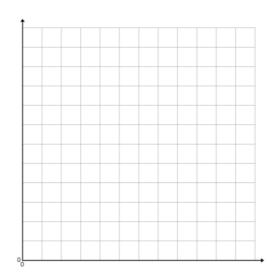
Independent Variable is Dependent Variable is

- b) Make a Scatter plot of the data.
- c) Describe the relationship between the speed of the car and its stopping distance on wet asphalt.

As <u>independent variable</u> increases the <u>dependent variable</u> <u>increases/decreases</u>.

As increases the

Speed (km/h)	Stopping Distance (m)
10	0.9
20	3.2
30	7.3
40	13
50	20.1
60	28.6
70	39.1
80	51.3
90	64.8
100	80
110	96.5



<u>Example. 2</u>. The following table lists the number of hours of driving instruction received by students at a driving school and their driving test scores.

a) Identify the independent and dependent variable.

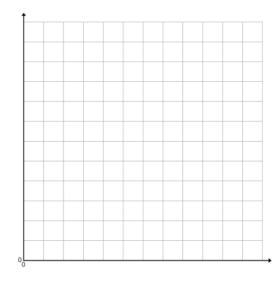
Independent Variable is Dependent Variable is

- b) Make a scatter plot of the data.
- c) Describe the relationship between the variables.

As

d) Are there any outliers? If so explain how they differ from the rest of the data.

Students Score	Instructional Hours
78	10
85	15
96	21
75	6
84	18
45	20
82	12



*** Using a broken y axis here would allow the data to better fill the graph but can cause issues with some of the work we will be doing later in this unit.