

# U4D2\_T Scatter Plots

Thursday, March 22, 2018 10:30 AM



U4D2\_T  
Scatter Pl...

MPM 1D1 -Unit 4 Relations

Day 2 - Scatter Plots

Warm up: 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)

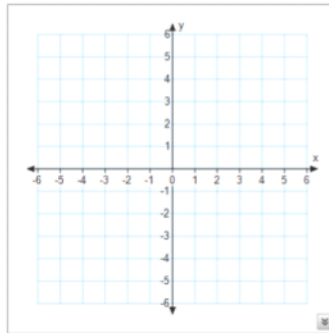
C (-2, -3)

D (5, -6)

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 \_\_\_\_\_.

( , )



Terms:

**Dependent Variable:** The variable that is affected by the other variable.

**Independent Variable:** The variable that changes the dependent variable.

**Outlier:** a measurement that differs significantly from the rest of the data.

Example 1: 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 the speed km/h  
**Dependent Variable** is the stopping distance (m)

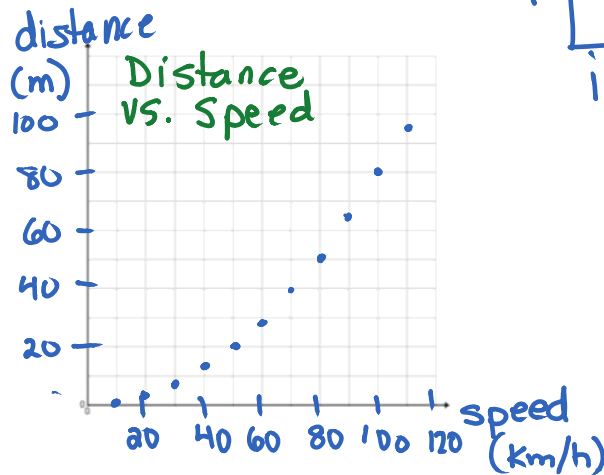
b) Make a Scatter plot of the data.

c) Describe the relationship between the speed of the car and its stopping distance on wet asphalt.

As independent variable increases the dependent variable increases/decreases.

As the speed increases the stopping distance increases.

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



Example. 2. 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** number of instructional hours.  
**Dependent Variable is** test score.

b) Make a scatter plot of the data.

c) Describe the relationship between the variables.

**As independent variable increases the dependent variable increases/decreases .**

As the number of instructional hours increases the student test score

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

(20, 45) High number of hours but low test score.

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

(10, 78)  
 (15, 85)

