Car Stopping distances

• An experiment was conducted to measure how the stopping distance of a car depends on its speed. • The experiment used a random selection of cars and variety of speeds.

Car Stopping Distances – Metric Units

Aim: Our aim is to investigate if there is a relationship between the stopping distance of the car and the speed at which it is travelling.

Independent Variable:

Dependent Variable:

Result and Graph:

Car Stopping Distances – Metric Units

kph	*m*	*kph*	*m*	*kph*	*m*	*kph*	*m*
6.4	0.6	19.3	7.3	25.7	9.8	32.2	14.6
6.4	3.0	19.3	8.5	25.7	12.2	32.2	15.8
11.3	1.2	20.9	7.9	27.4	9.8	32.2	17.1
11.3	6.7	20.9	10.4	27.4	12.2	32.2	19.5
12.9	4.9	20.9	10.4	27.4	15.2	35.4	20.1
14.5	3.0	20.9	14.0	29.0	12.8	37.0	16.5
16.1	5.5	22.5	7.9	29.0	17.1	38.6	21.3
16.1	7.9	22.5	11.0	29.0	23.2	38.6	28.0
16.1	10.4	22.5	18.3	29.0	25.6	38.6	28.3
17.7	5.2	22.5	24.4	30.6	11.0	38.6	36.6
17.7	8.5	24.1	6.1	30.6	14.0	40.2	25.9
19.3	4.3	24.1	7.9	30.6	20.7		
19.3	6.1	24.1	16.5	32.2	9.8		

Create a graph online using the above data. Keep the following in mind

1. Label both x and Y axis
2. Have a title for the graph with units
3. Have the independent variable on the x-axis and dependent variable on the y-axis.

Analysis:

- What kind of corelation do you see from this graph?
- Depending on your analysis, would the stopping distance increase or decrease with speed?
- What are the factors that can affect this analysis?