

Grade 8

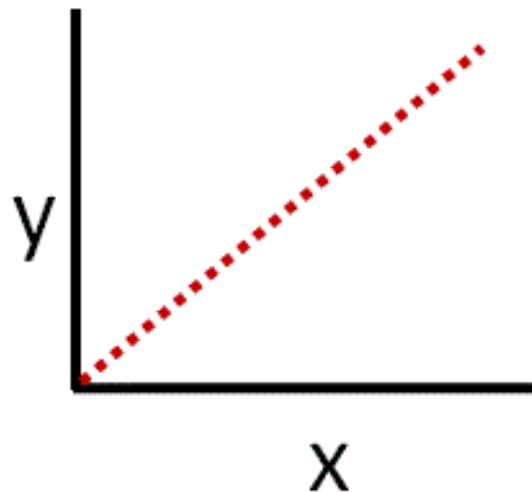
Unit 5 Vocabulary

Interpreting Data

(8.5C, 8.5D, 8.11A, 8.11B, 8.11C)

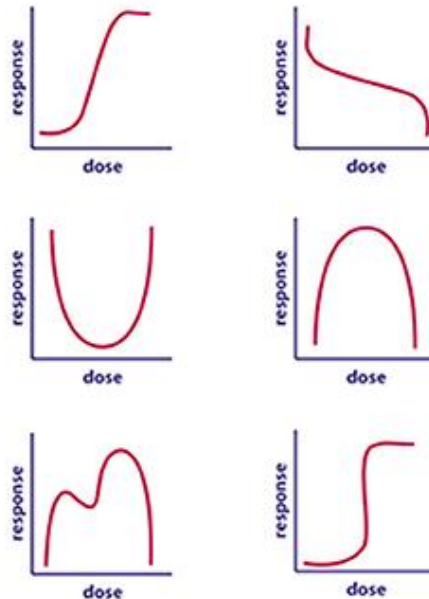
Linear relationship – a relationship with a constant rate of change represented by a graph that forms a straight line

A relationship that makes a straight line when it is graphed.



Non-Linear relationship – a relationship that does not have a constant rate of change and which is not represented by a graph that forms a straight line.

A relationship that DOES NOT make a straight line when it is graphed.



Univariate Data – Data relating to only one quantitative variable.

Data for one variable

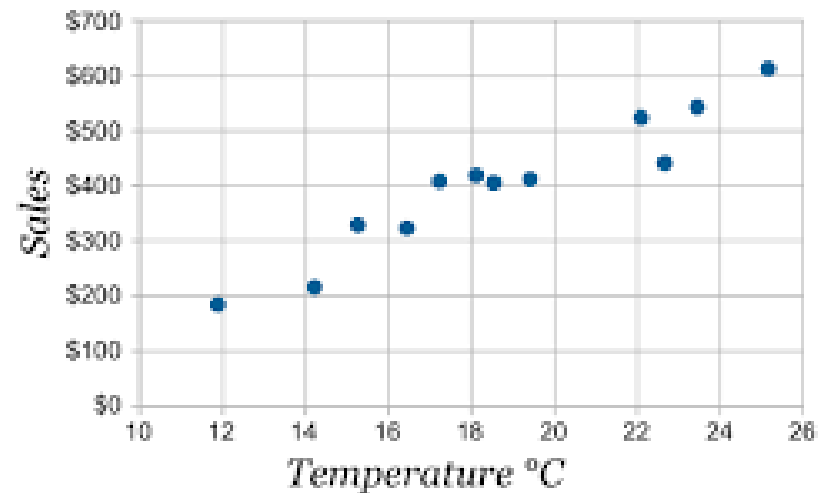
Heights (in cm)	164	167.3	170	174.2	178	180	186
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Bivariate Data - Data relating two quantitative variables that can be represented by a scatterplot.

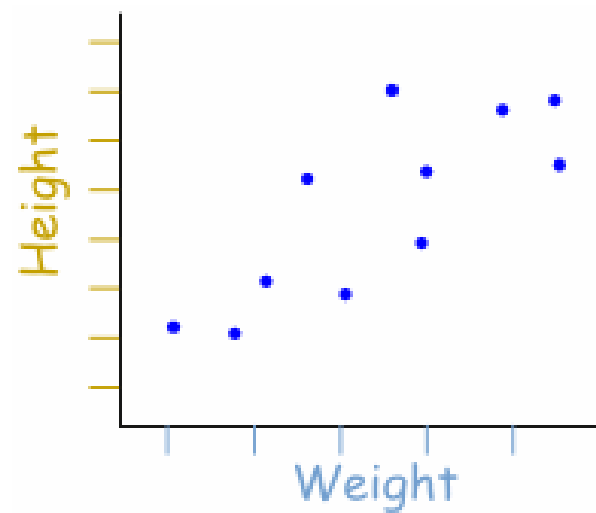
Data for two variables

Height(cms)	Weight(Lbs)
160	145
176	163
165	171
180	153
171	173
149	182
158	123
181	142



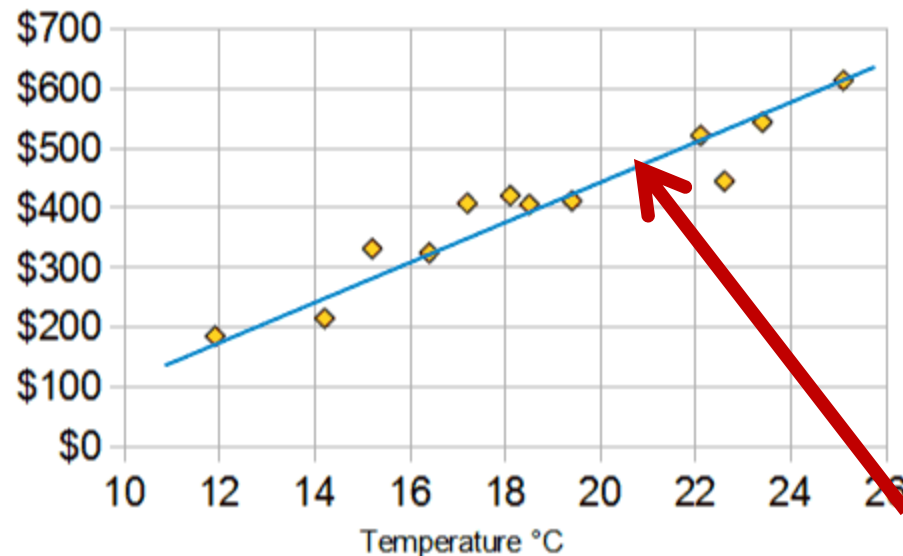
Scatterplot – a graphical representation used to display the relationship between discrete data pairs

A graph of plotted points that show the relationship between two sets of data.



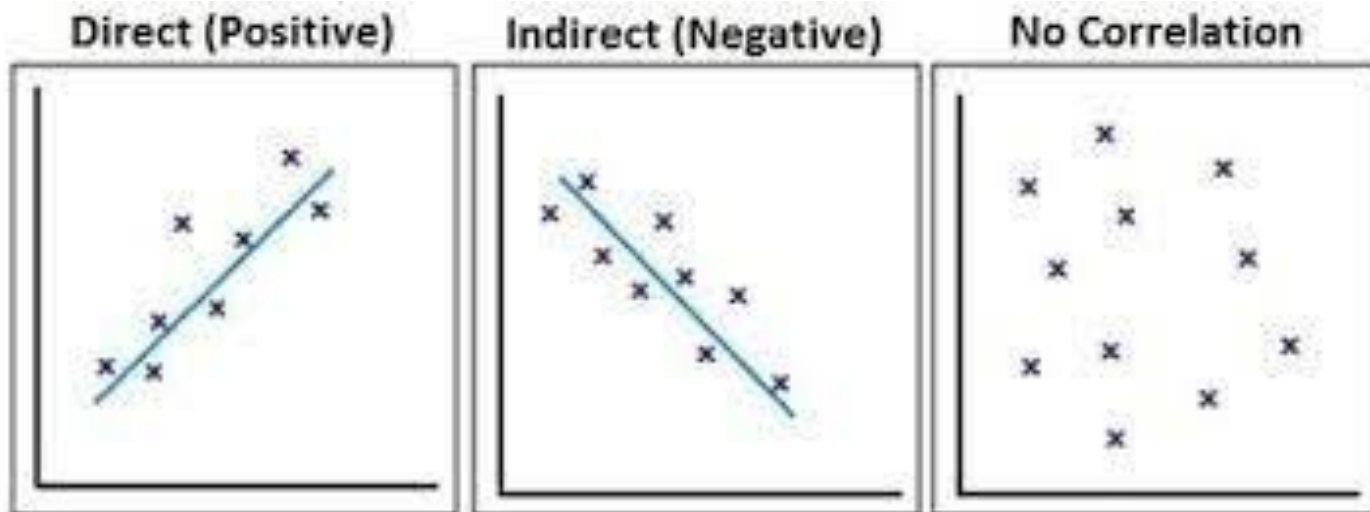
Trendline – the line that best fits the data points of a scatterplot

A line on a graph showing the general direction that a group of points seem to be heading.



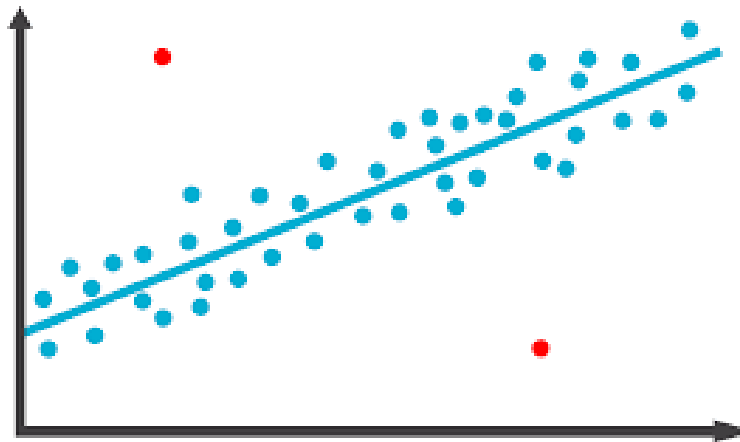
Correlation – a mutual relationship or connection between two or more things

The association or pattern of the points on a scatterplot. Can be +, -, or none.



Outlier - A value that "lies outside" (is much smaller or larger than) most of the other values in a set of data.

A very big or small number compared to others
in a set



Mean Absolute Deviation - a measure of variability that indicates the average distance between each observation and the mean.

How far, on average, all values are from the middle.

① Mean:

$$\frac{28+30+28+39+25}{5} = \frac{150}{5} = \boxed{30}$$

② Differences:

$$\begin{array}{ccccc} \frac{30}{-28} & \frac{30}{-30} & \frac{30}{-28} & \frac{39}{-30} & \frac{30}{-25} \\ \frac{2}{0} & \frac{2}{9} & \frac{5}{5} & & \end{array}$$

③ Mean:

$$\frac{2+0+2+9+5}{5} = \frac{18}{5} = \boxed{3.6}$$

Survey – To gather information by individual samples so we can learn about the whole thing.

collecting a sample of data
by asking people questions

Favorite Pets

Pet	Tally Marks
