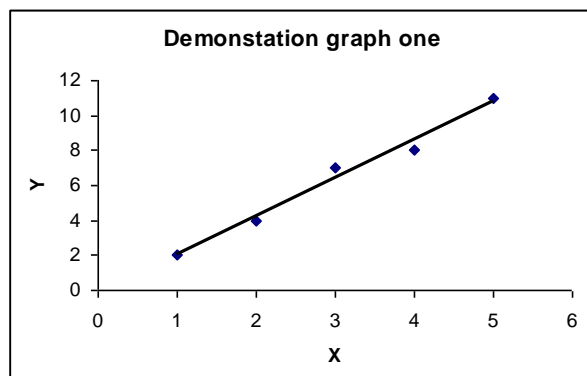


## Describing relationships (XY scatter graphs)

When you create an XY scatter graph you would normally add a trend line to show the relationships between the two variables. The shape of the trend line lets you describe the relationship between two variables.

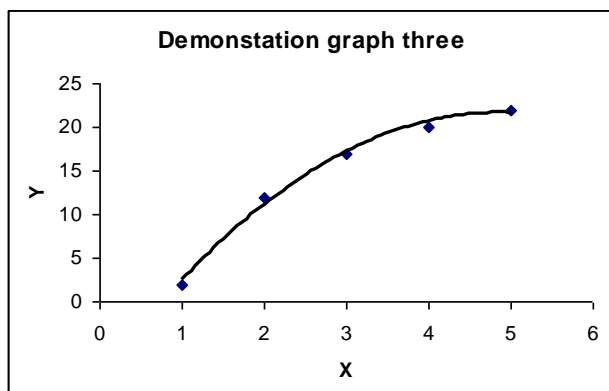
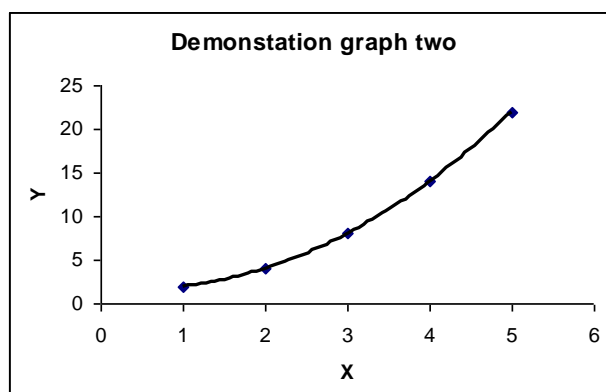


Here are four examples:  
Here there is a straight (linear) trend line going up and which is coming from the origin (0,0)

**Y is proportional to X**

Here the straight line did not fit well so I did a polynomial trend line.

**Y increases as X increases. Y increases more quickly when X is bigger.**



Here the straight line did not fit well so I did a polynomial trend line again.

**Y increases as X increases. Y increases less quickly when X is bigger.**

Here the line is going down

**Y decreases as X increases. There is an inverse relationship between X and Y**

