Introduction to Graphs

- A data that changes continuously over periods of time can be displayed by a line graph.

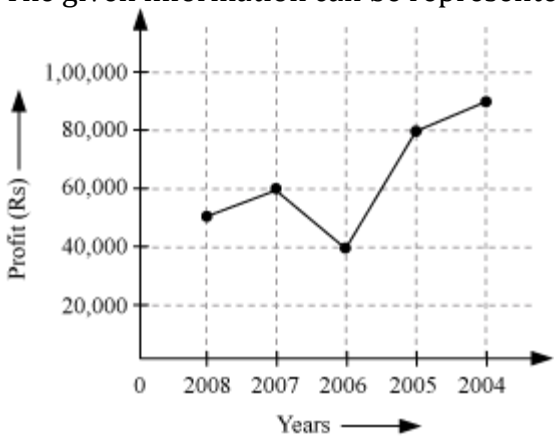
  Example: The given table shows the profit earned by a shopkeeper in the last five years of his business.

Year	2008	2007	2006	2005	2004
Profit (in Rs)	50,000	60,000	40,000	80,000	90,000

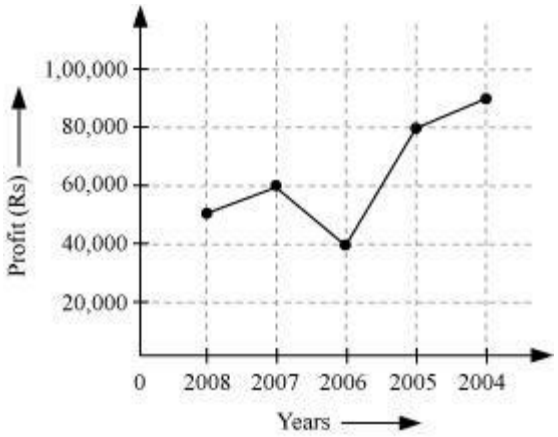
  Represent the given information by a line graph.

  Solution: The years are represented on the horizontal axis and the profit earned on the vertical axis.

  The given information can be represented by a line graph as:



- The given graph shows the profit earned by a shopkeeper in different years.

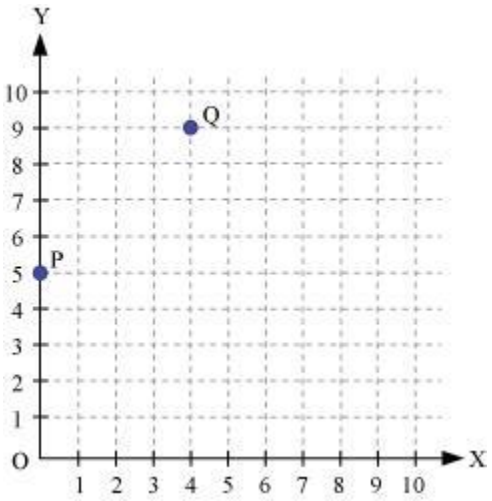


From this line graph, a lot of information can be interpreted. From the graph, it can be observed that the profit earned by the shopkeeper was maximum in the year 2004 and minimum in the year 2006.
Also, it can be inferred that the total profit earned by the shopkeeper in the years, 2005, 2006, and 2007, was Rs (80,000 + 40,000 + 60, 000) = Rs 180,000

It can also be inferred that the maximum decrease in the profit was between the years 2005 and 2006.
In this way, a lot of information can be interpreted from a given line graph.

- **Finding coordinates of any points P and Q, in the given graph.**

Consider the given graph.



Here, the coordinates of the points P and Q are (0, 5) and (4, 9) respectively