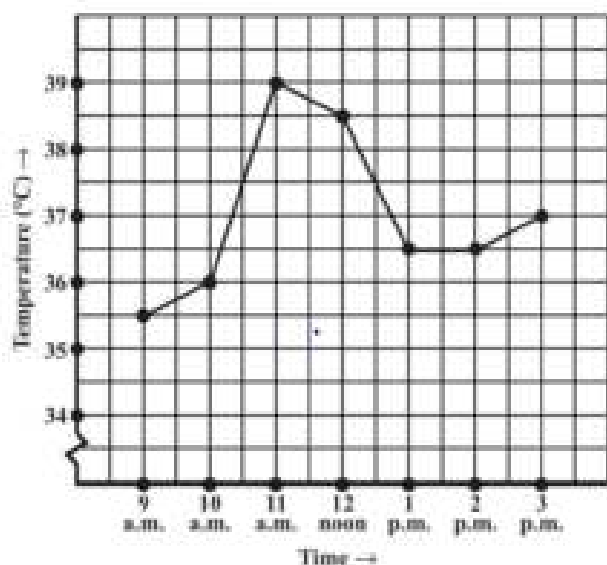


NCERT SOLUTIONS OF Graph's Exercise

1

Question 1

The following graph shows the temperature of a patient in a hospital, recorded every hour.



- What was the patient's temperature at 1 p.m.?
- When was the patient's temperature 38.5°C ?
- The patient's temperature was the same two times during the period given. What were these two times?
- What was the temperature at 1.30 p.m.? How did you arrive at your answer?
- During which periods did the patients' temperature showed an upward trend?

Answer:

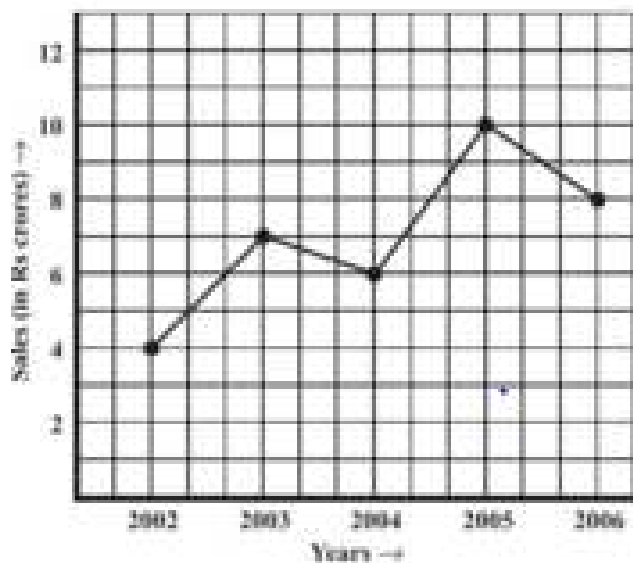
After studying the graph, we can easily answer these questions

- The patient's temperature at 1 p.m. is 36.5°C

- (b) The patient's temperature 38.5°C happened at 12:00 Noon
- (c) The patient's temperature was the same at 1:00 PM and 2:00 PM
- (d) The graph between 1 AM and 2AM is line parallel to x-axis. So temperature at 1.30 AM will be temperature at 1AM. So answer is 36.5°
- (e) Patients temperature showed an upward trend from 10:00 to 11:00 AM and from 2:00 to 3:00 PM

Question 2

The following line graph shows the yearly sales figures for a manufacturing company.



- (a) What were the sales in (i) 2002 (ii) 2006?
- (b) What were the sales in (i) 2003 (ii) 2005?
- (c) Compute the difference between the sales in 2002 and 2006.
- (d) In which year was there the greatest difference between the sales as compared to its previous year?

Answer:

- (a) The sales of the manufacturing company was Rs. 4 crores in 2002 and Rs. 8 crores in 2006

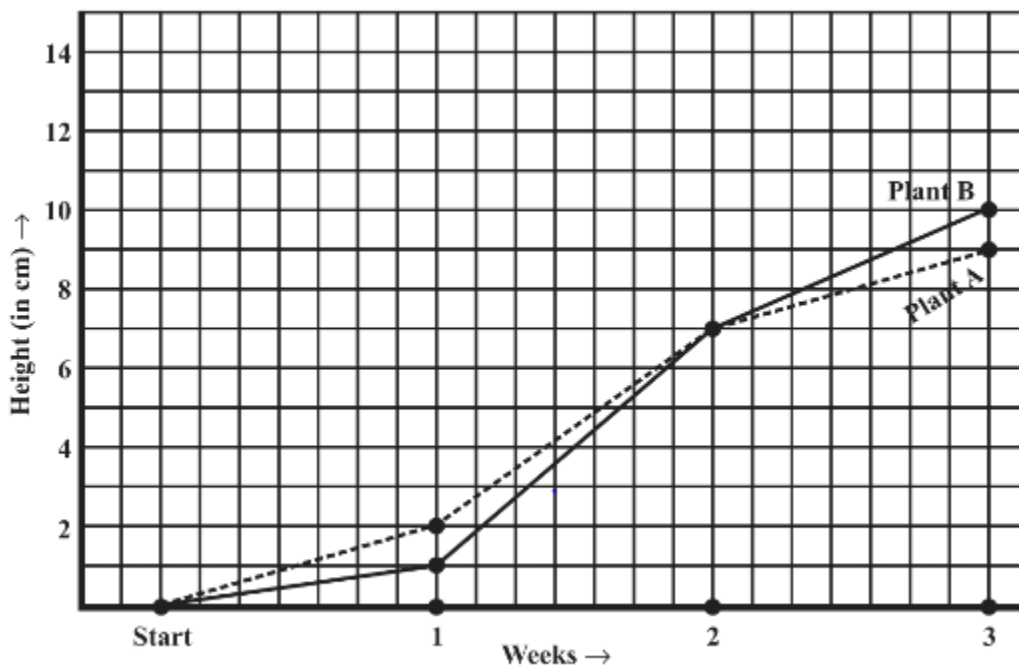
(b) The sales of the manufacturing company was Rs. 7 crores in 2003 and Rs. 10 crores in 2005

(c) $8-4=4$; Sales of 2006 is Rs. 4 crores more than that of 2002

(d) 2005 sees the greatest jump in sales which clear from the steepest angle between these years.

Question 3

For an experiment in Botany, two different plants, plant A and plant B were grown under similar laboratory conditions. Their heights were measured at the end of each week for 3 weeks. The results are shown by the following graph.



(a) How high was Plant A after (i) 2 weeks (ii) 3 weeks?

(b) How high was Plant B after (i) 2 weeks (ii) 3 weeks?

(c) How much did Plant A grow during the 3rd week?

(d) How much did Plant B grow from the end of the 2nd week to the end of the 3rd week?

(e) During which week did Plant A grow most?

(f) During which week did Plant B grow least?

(g) Were the two plants of the same height during any week shown here? Specify.

Answer

We can easily infer following from graph

a) The plant A was high (i) 7 cm (ii) 9 cm

b) The plant B was high (i) 7 cm (ii) 10 cm

c) 2 cm

d) 3 cm

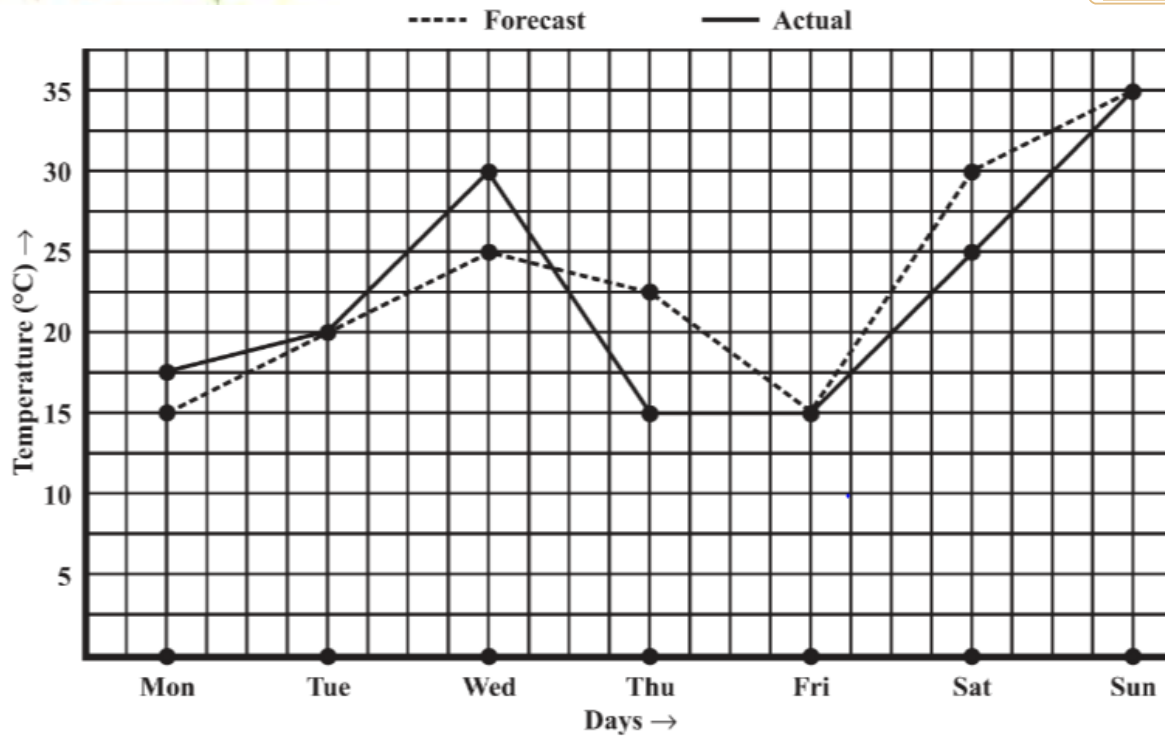
e) From week 1 to week 2 by 5 cm

f) In the first week by 1 cm

g) Second week both have a height of 7 cm

Question 4

The following graph shows the temperature forecast and the actual temperature for each day of a week.



- On which days was the forecast temperature the same as the actual temperature?
- What was the maximum forecast temperature during the week?
- What was the minimum actual temperature during the week?
- On which day did the actual temperature differ the most from the forecast temperature?

Answer:

- The forecast temperature the same as the actual temperature on Tuesday 20° c, Friday 15° c and Sunday 35° c
- The maximum forecast temperature during the week was 35° c
- The minimum actual temperature during the week 15° c
- Thursday, by 7.5° c (Notice the largest gap between two lines)

Question 5

Use the tables below to draw linear graphs.

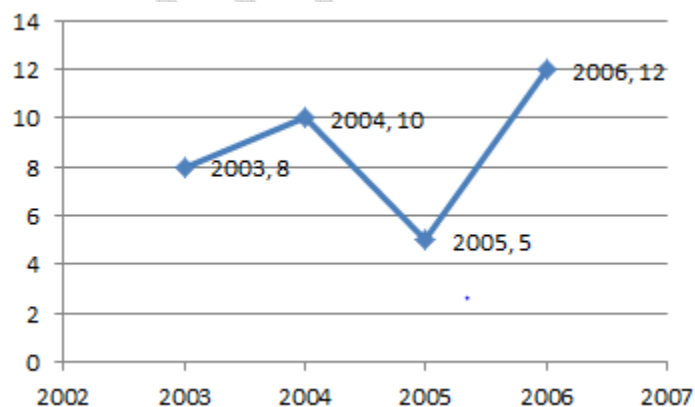
(a) The number of days a hill side city received snow in different years.

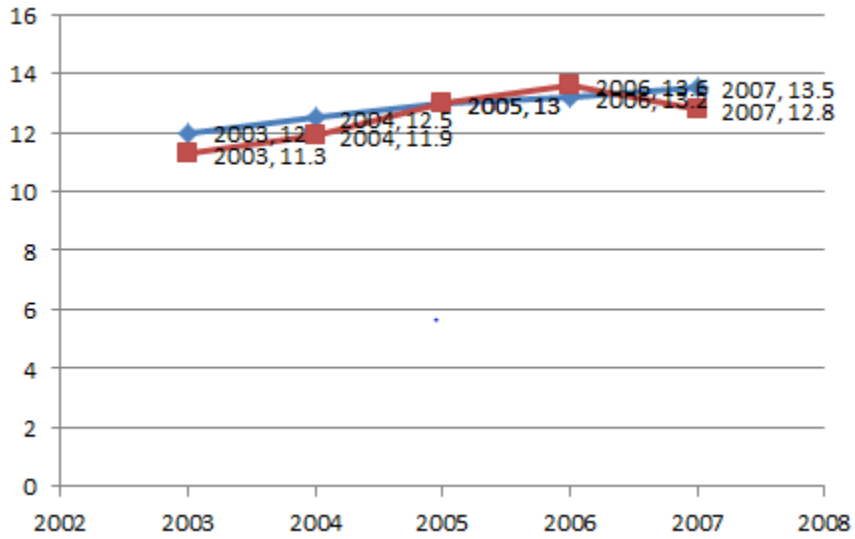
| | | | | |
|-------------|------|------|------|------|
| Year | 2003 | 2004 | 2005 | 2006 |
| Days | 8 | 10 | 5 | 12 |

(b) Population (in thousands) of men and women in a village in different years.

| | | | | | |
|------------------------|------|------|------|------|------|
| Year | 2003 | 2004 | 2005 | 2006 | 2007 |
| Number of Men | 12 | 12.5 | 13 | 13.2 | 13.5 |
| Number of Women | 11.3 | 11.9 | 13 | 13.6 | 12.8 |

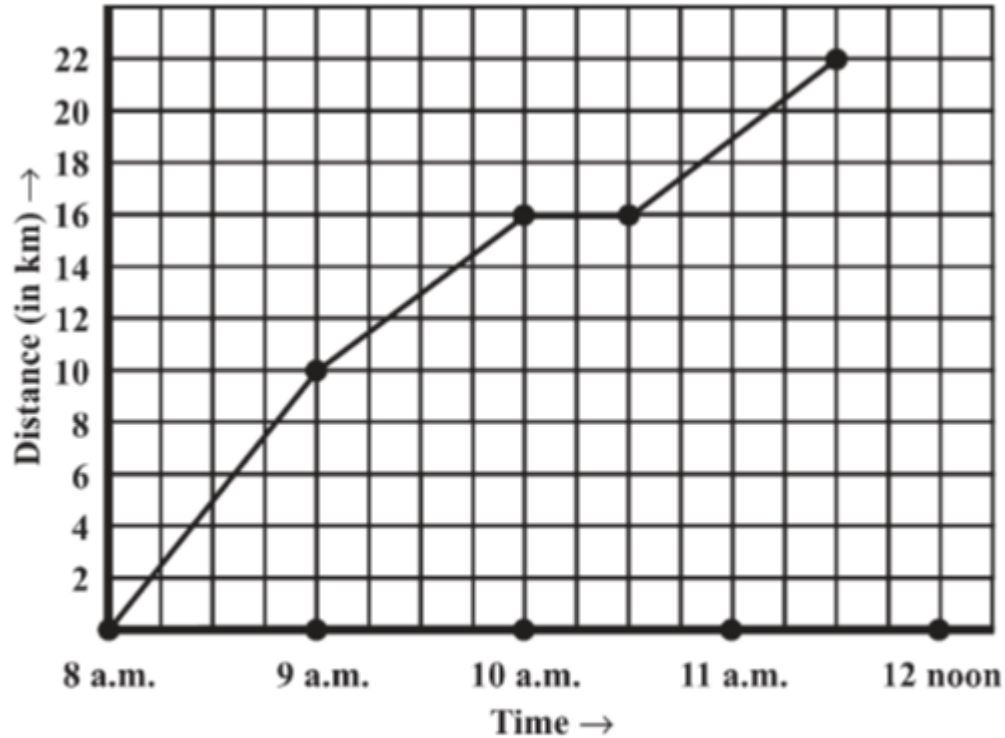
Answer:





Question 6

A courier-person cycles from a town to a neighboring suburban area to deliver a parcel to a merchant. His distance from the town at different times is shown by the following graph.



- What is the scale taken for the time axis?
- How much time did the person take for the travel?
- How far is the place of the merchant from the town?
- Did the person stop on his way? Explain.
- During which period did he ride fastest?

Answer

a) The scale taken for time axis is 1 hour

b) 3.5 hours

c) 22 kms

d) Between 10:00 AM to 11:00 AM the line is horizontal, which explains that the person took rest between these timings

e) Between 8:00 AM and 9:00 AM he traveled 10 kms, (look for the steepest angle made by the line)

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