



MATHS

BOOKS - SWAN PUBLICATION

INTRODUCTION TO GRAPHS

Think Discuss And Write

1. A taxi- driver filled his car petrol tank with 40 litres of petrol on Mondy.The next day,he filled the tank with 50 litres of petrol.If the petrol

costs Rs.44 per litre,how much did he spend in all on petrol?

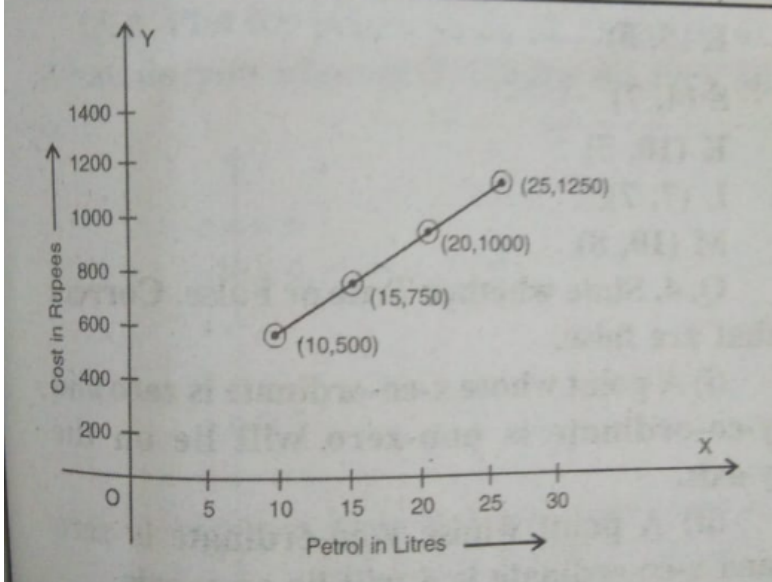


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Try These

1. Refer to the graph given in fig.

How much petrol can be bought for Rs.600?



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2. Is the following Direct variation or Inverse variation?

Distance covered and taxi fare.

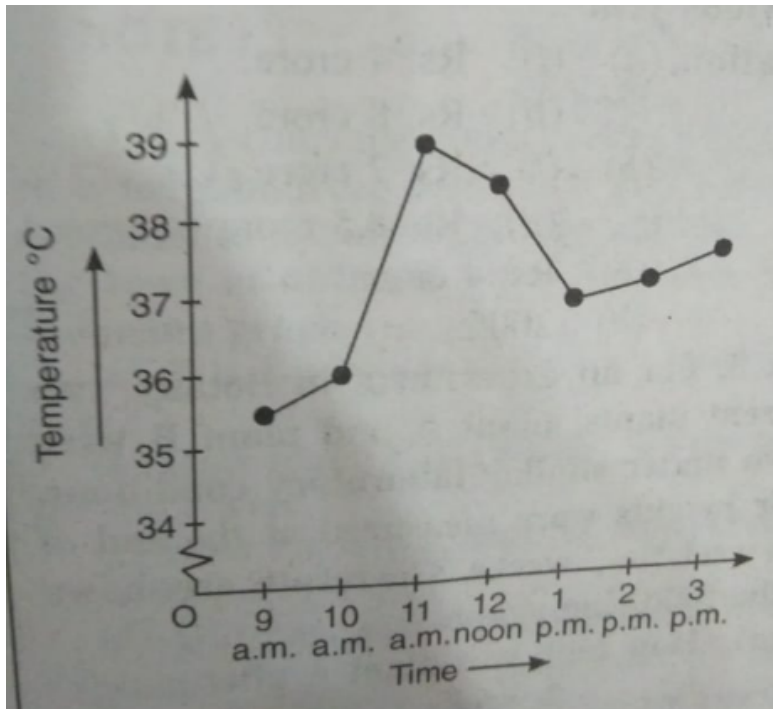


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Exercise 15 1

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

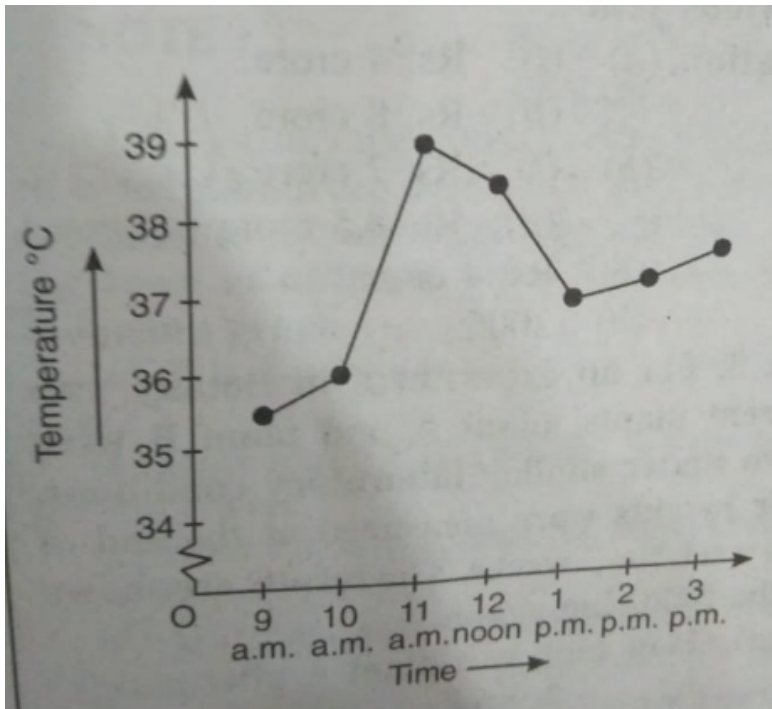
What was the patient's temperature at 1p.m.?



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

What was the patient's temperature at 1p.m.?



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

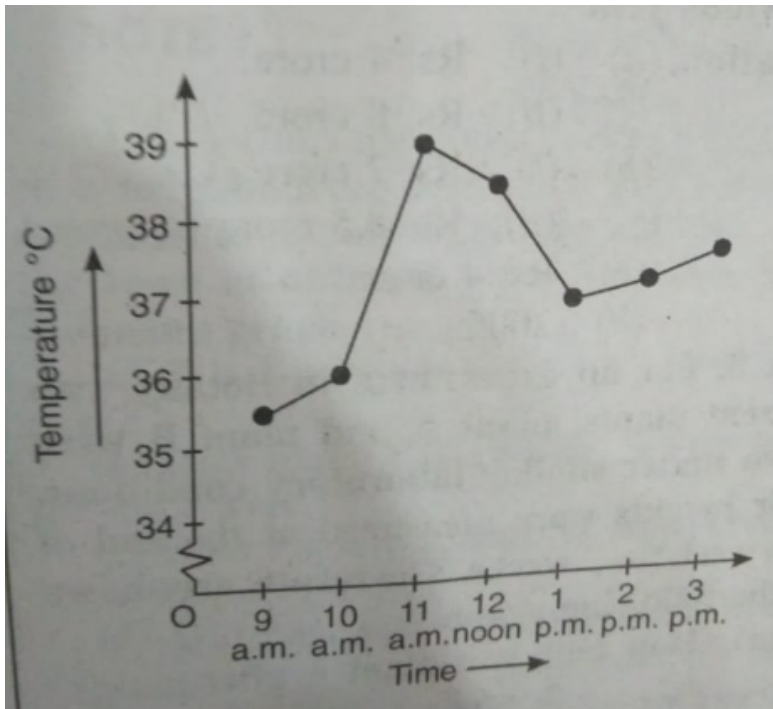
When was the patient's temperature was the same two times during the period is given. What were these two times?



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4. The following graph shows the temperature of a patient in a hospital, recorded every hour. What was the temperature at 1.30 pm. ? How

did you arrive at your answer ?



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

During which periods did the patient's temperature showed an upward trend?



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

What were the sales in (i) 2002 (ii) 2006?



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

What were the sales in (i) 2002 (ii) 2006?



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

What were the sales in (i) 2002 (ii) 2006?



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

What were the sales in:

2003,2005



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

Compute the difference between the sales in 2002 and 2006.



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11. The following line graph shows the yearly sales figures for a manufacturing company: In which year was there the greatest difference between the sales as compared to its previous year?

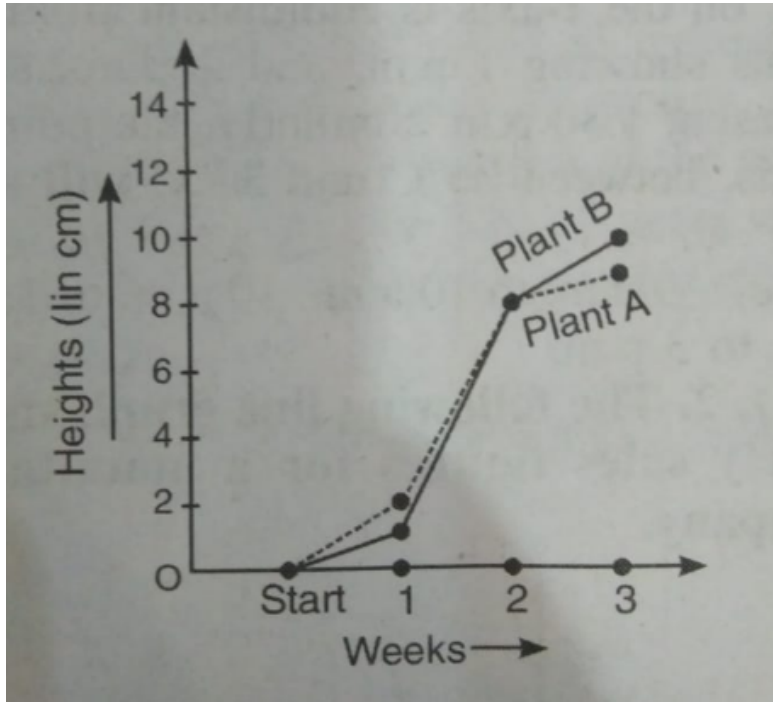




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12. For an experiment in Botany, two different plants, plant A and plant B were grown under similar laboratory conditions. Their heights were measured at the end of each week for 3 weeks. The results are shown by the following graph.

During which week did Plant A grow most?

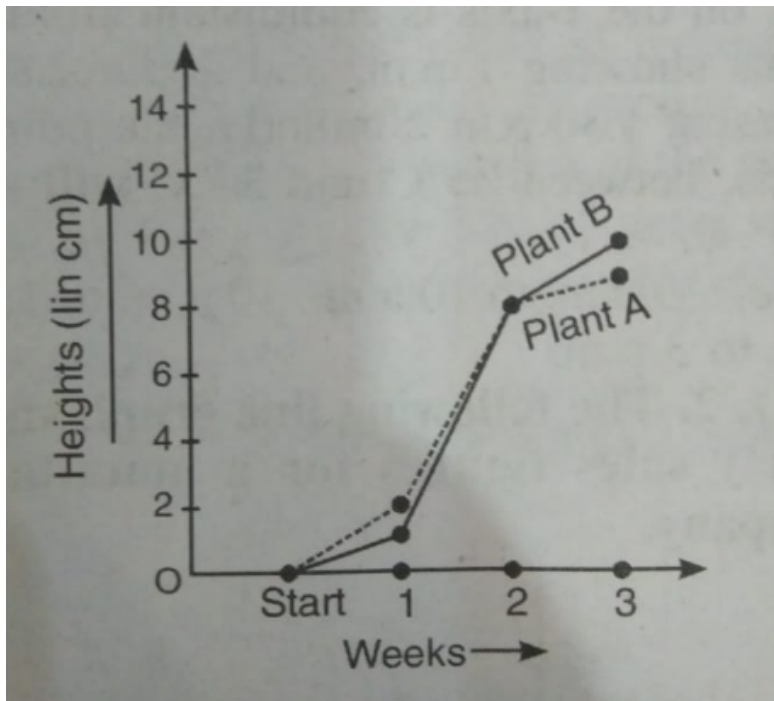


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13. For an experiment in Botany, two different plants, plant A and plant B were grown under

similar laboratory conditions. Their heights were measured at the end of each week for 3 weeks. The results are shown by the following graph.

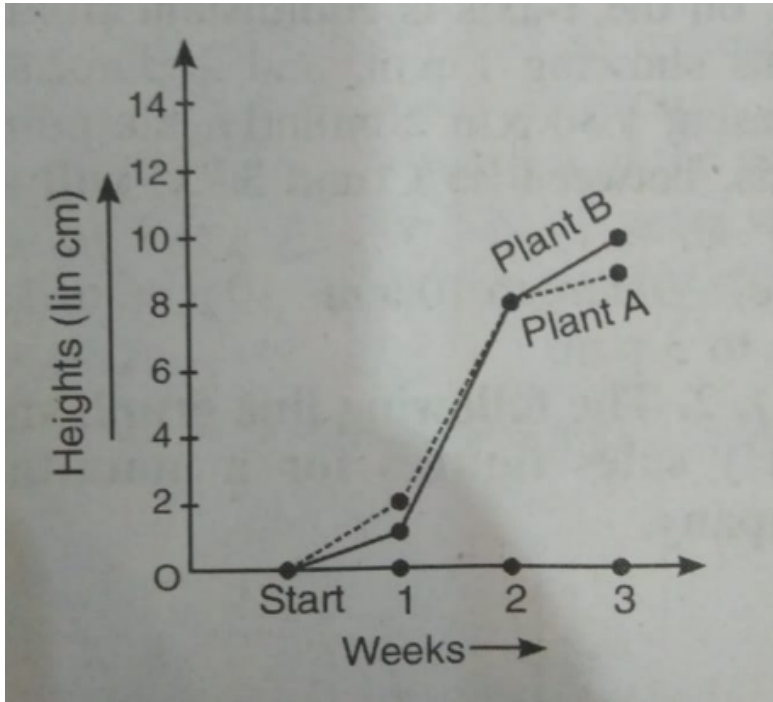
During which week did Plant A grow most?



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14. 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.

During which week did Plant A grow most?



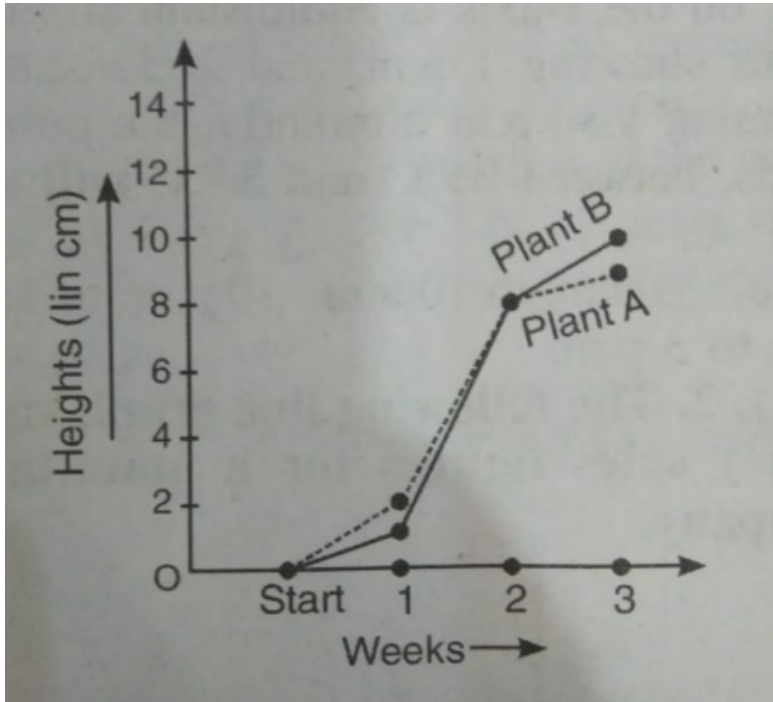
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15. For an experiment in Botany, two different plants, plant A and plant B were grown under

similar laboratory conditions. Their heights were measured at the end of each week for 3 weeks. The results are shown by the following graph.

How high was plant A after 2 weeks?

3 weeks?

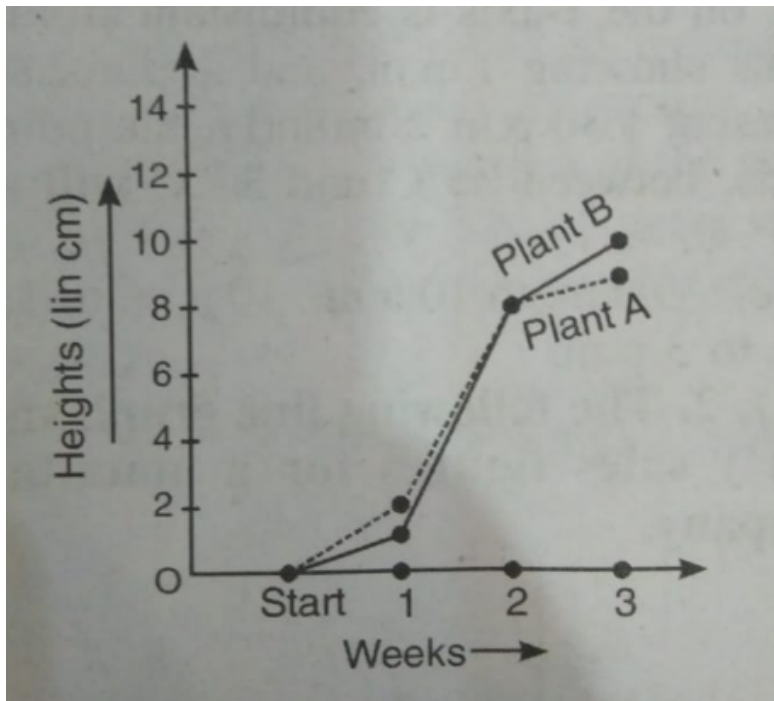


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16. For an experiment in Botany, two different plants, plant A and plant B were grown under

similar laboratory conditions. Their heights were measured at the end of each week for 3 weeks. The results are shown by the following graph.

During which week did Plant A grow most?

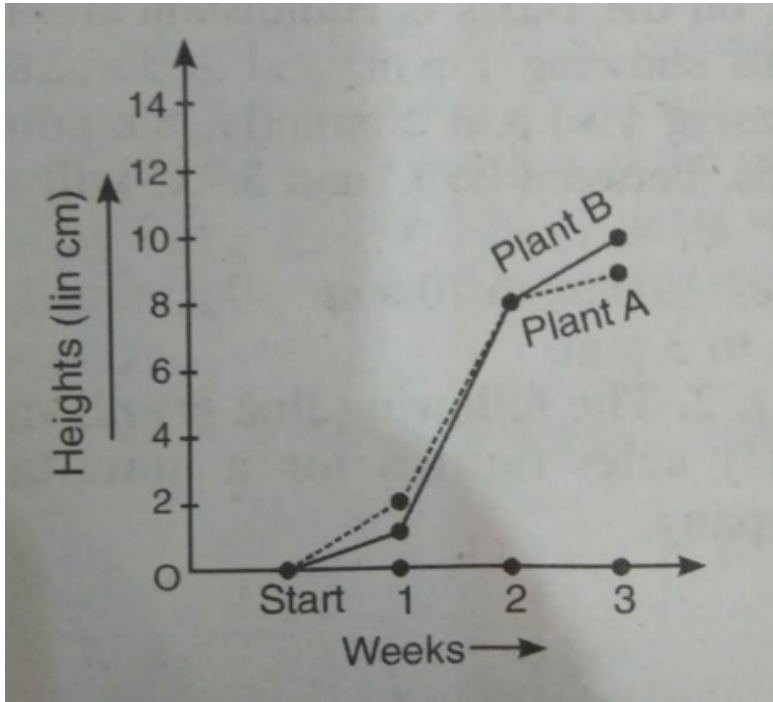


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17. For an experiment in Botany, two different plants, plant A and plant B were grown under similar laboratory conditions. Their heights were measured at the end of each week for 3 weeks. The results are shown by the following graph.

How high was plant A after 2 weeks?

3 weeks?

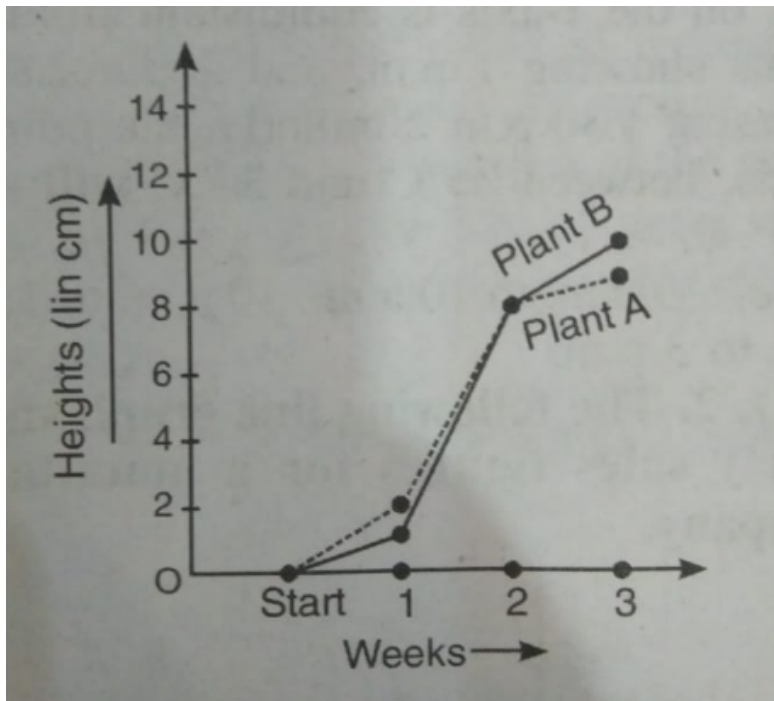


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18. For an experiment in Botany, two different plants, plant A and plant B were grown under

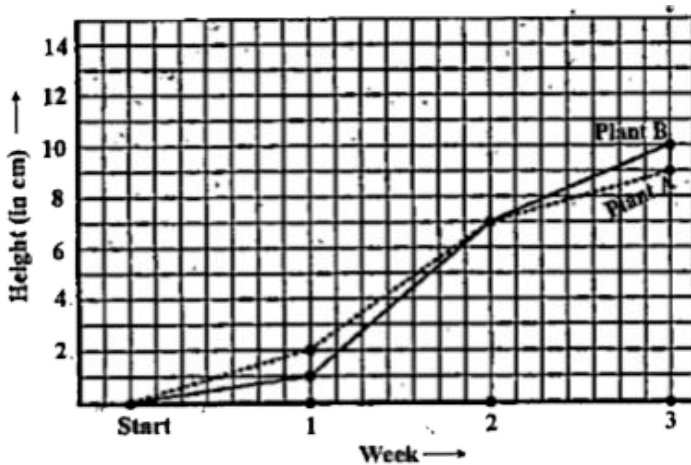
similar laboratory conditions. Their heights were measured at the end of each week for 3 weeks. The results are shown by the following graph.

During which week did Plant A grow most?



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19. 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:



During which week did Plant B grow least ?

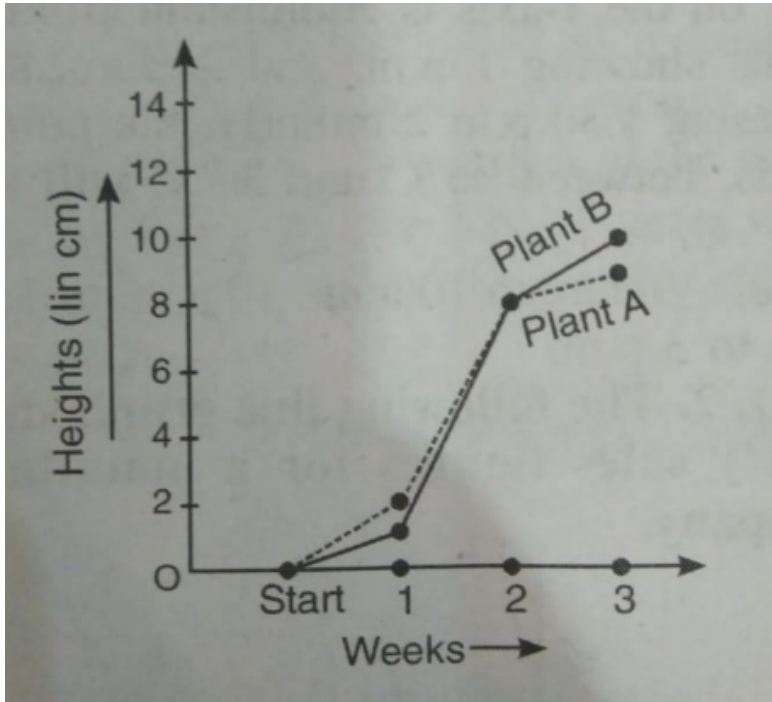


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20. For an experiment in Botany, two different plants, plant A and plant B were grown under similar laboratory conditions. Their heights were measured at the end of each week for 3 weeks. The results are shown by the following graph.

Were the two plants of the same height

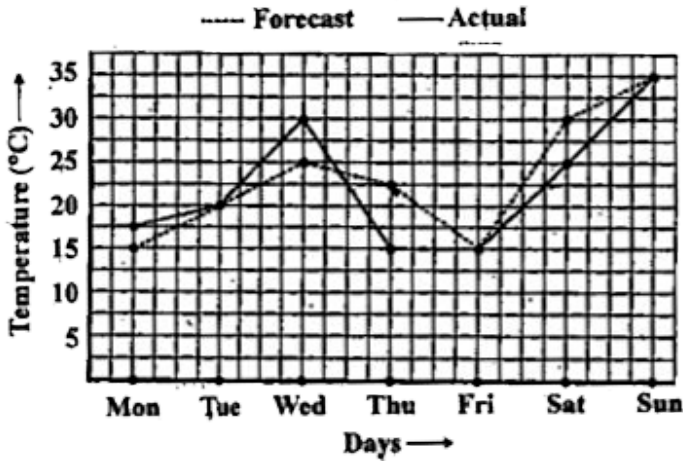
during any week shown here ?Specify.



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21. The following graph shows the temperature forecast and the actual

temperature for each day of a week .

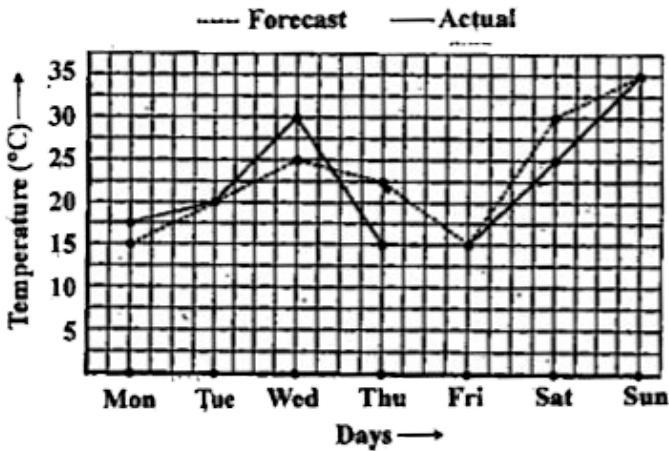


On which days was the forecast temperature the same as the actual temperature?

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22. The following graph shows the temperature forecast and the actual

temperature for each day of a week .



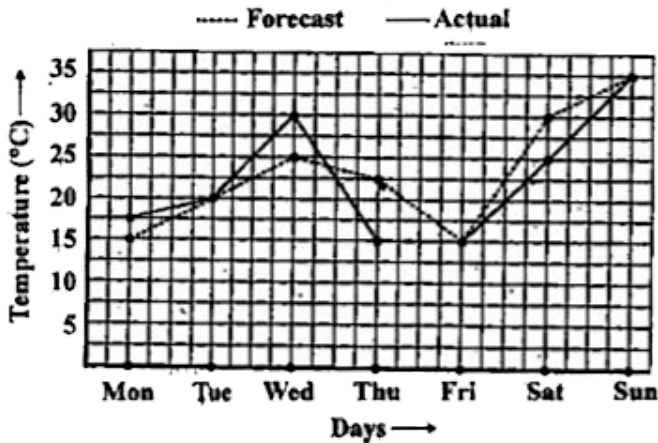
What was the maximum forecast temperature during the week?



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23. The following graph shows the temperature forecast and the actual

temperature for each day of a week .



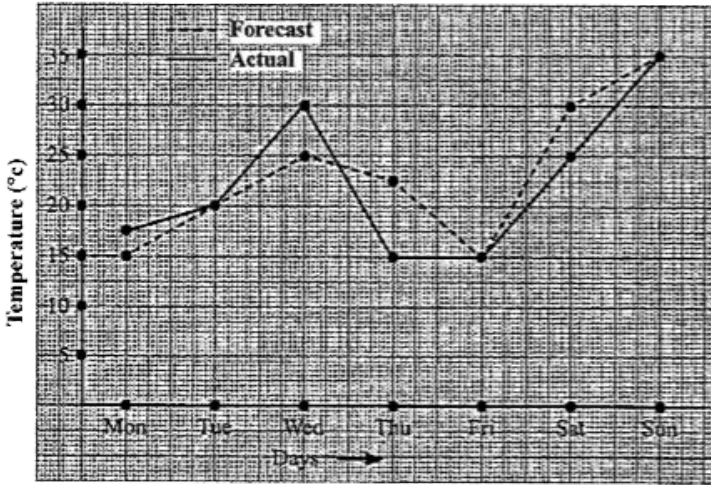
What was the minimum actual temperature during the week?



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24. On which day did the actual temperature differ the most from the forecast temperature

?



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25. Use the tables below to draw linear graphs.

The number of days a hill side city recived

show in different years.

Year	2003	2004	2005	2006
Days	8	10	5	12



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26. Use the tables below to draw linear graphs.

Population (in thousands) of men and women

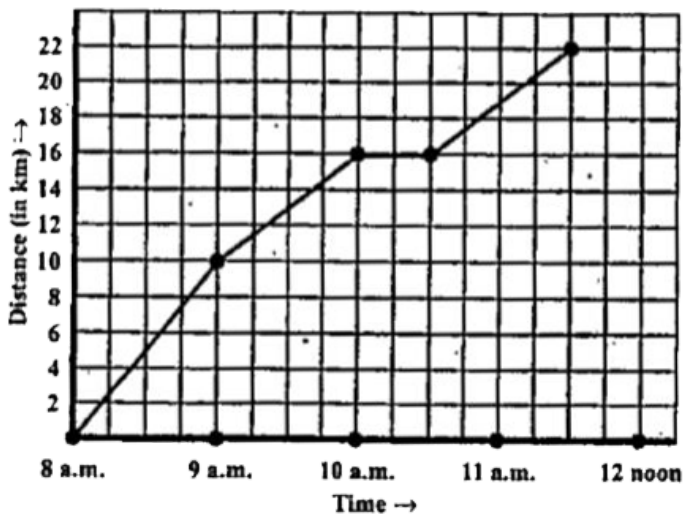
in a village in different years:

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



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27. A courier-person cycles from a town to a neighbouring burban area to deliver a parcel to a merchant. His distance from e town at different times is shown by the following graph:



What is the scale taken for the time axis ?



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

How much time did the person taken for the travel ?



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

How much time did the person taken for the travel ?



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30. A courier -person cycles from a town to a neighbouring subrban area to deliver a parcel

to a merchant .His distance from the town at different times is shown by the following graph:

Did the person stop on his way ?Explain.



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

graph:

During which period did he ride fastest ?



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32. Can there be a time -temperature graph as follows ?Justify your answer .



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Exercise 15 2

1. Plot the following points on a graph sheet

.Verify if they lie on a line.

A (4,0),B(4,2),C(4,6),D(4,2.5).



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2. Plot the following points on a graph sheet

.Verify if they lie on a line.

P(1,1),Q(2,2),R(3,3),S(4,4).



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3. Plot the following points on a graph sheet

.Verify if they lie on a line.

K(2,3),L(5,3),M(5,5),N(2,5).



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4. Draw the line passing through(2,3) and

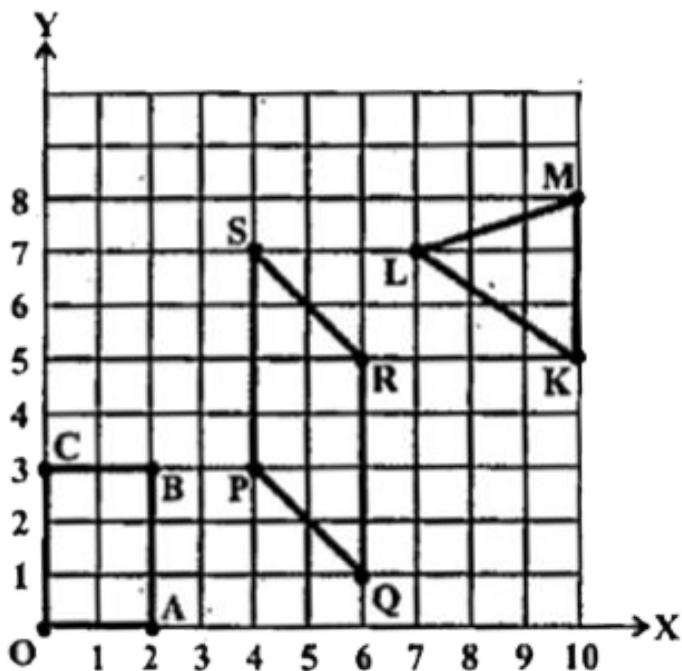
(3,2).Find the co-ordinates of the points at

which this line meets the x-axis and y-axis.



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5. Write the coordinates of the vertices of each of these adjoining figures.



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6. State whether True or False. Correct that are false.

A point whose x-co-ordinate is zero and y-co-ordinate is non - zero will lie on the y - axis.



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7. State whether True or False. Correct that are false.

A point whose y-co-ordinate is zero and x-co-ordinate is 5 will lie on y-axis.





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8. State whether True or False. Correct that are false.

The co-ordinates of the origin are $(0,0)$.



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Exercise 15 3

1. Draw the graphs for the following tables of values , with suitable scales on the axes .

Cost of apples

Number of apples	1	2	3	4	5
Cost (in ₹)	5	10	15	20	25



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2. Draw the graphs for the following tables of value ,with suitable scales on the axes.

Distance travelled by a car.

What was the time when the car had covered a

distance of 100 km, since it's start ?

Time (in hours)	6 a.m.	7 a.m.	8 a.m.	9 a.m.
Distance (in km)	40	80	120	160



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3. Draw the graphs for the following tables of value ,with suitable scales on the axes.

Distance travelled by a car.

What was the time when the car had covered a

distance of 100 km, since it's start ?

Time (in hours)	6 a.m.	7 a.m.	8 a.m.	9 a.m.
Distance (in km)	40	80	120	160



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4. Draw the graphs for the following tables of value ,with suitable scales on the axes.

Interest n deposits for a year.

Does the graph pass thorough the origin?





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5. Draw the graphs for the following tables of value ,with suitable scales on the axes.

Interest n deposits for a year.

Use the graph to find the interest on Rs.2,500 for a year.



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6. Draw the graphs for the following tables of value ,with suitable scales on the axes.

Interest n deposits for a year.

To get an interest of Rs.280 per year,how much money should be deposited.



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7. Draw a graph for the following:

Side of square (in cm)	2	3	3.5	5	6
Perimeter (in cm)	8	12	14	20	24

Is it a linear graph ?



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8. Draw a graph for the following:

Side of square (in cm)	2	3	4	5	6
Area (in cm^2)	4	9	16	25	36

Is it a linear graph ?



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