MATHS

BOOKS - MTG IIT JEE FOUNDATION

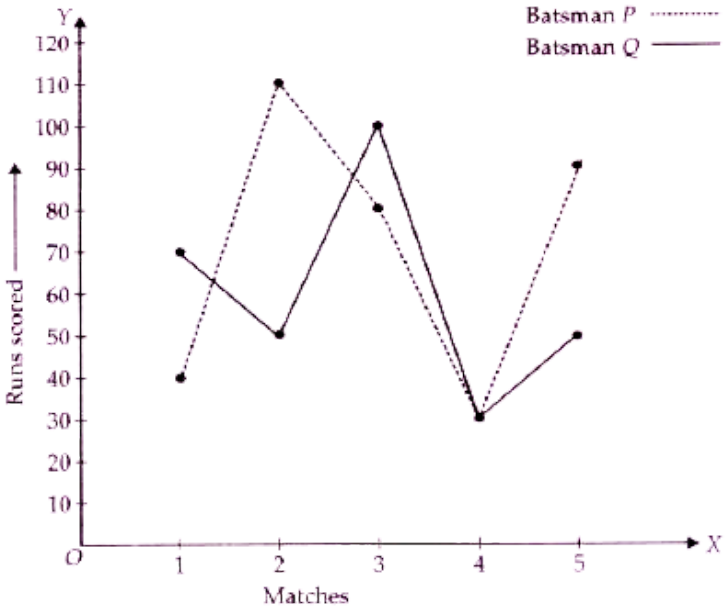
INTRODUCTION TO GRAPHS

Illustrations

1. Performance based graph) The given graph shows the total runs scored by two batmans P and Q during each of the five different

matches in the year 2011. study the graph and answer the following questions :

What information is given on the axes?



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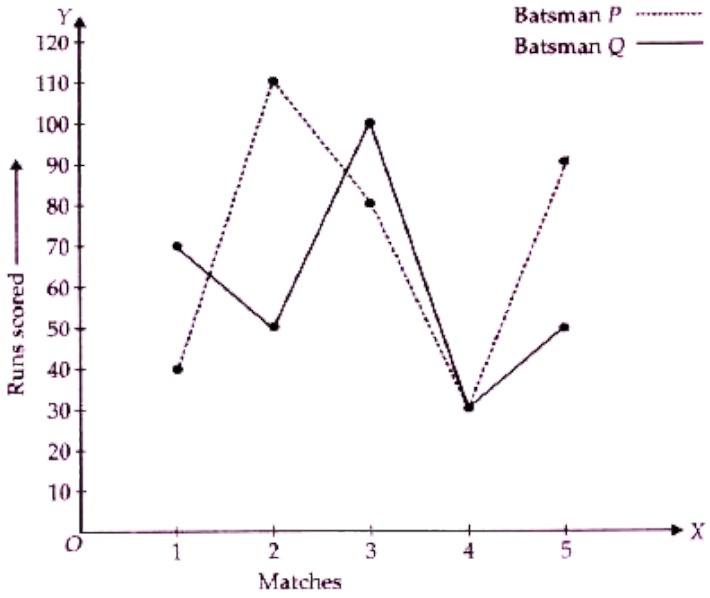
2. Performance based graph) The given graph shows the total runs scored by two batmans P and Q during each of the five different matches in the year 2011. study the graph and answer the following questions :

Which line shows the runs scored by batmans

Q?



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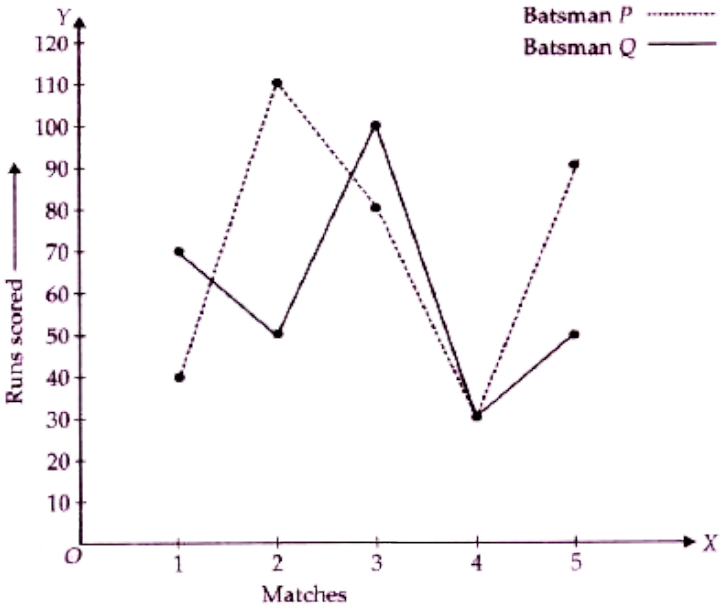
3. Performance based graph) The given graph shows the total runs scored by two batmans P

and Q during each of the five different matches in the year 2011. study the graph and answer the following questions :

Were the run scored by them same in any match in 2011? if so, in which match? .



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4. The given line graph shows the distance travelled by a motorcyclist from a city A to B at different times. These two cities are 500 km apart. Study the graph and answer the following:

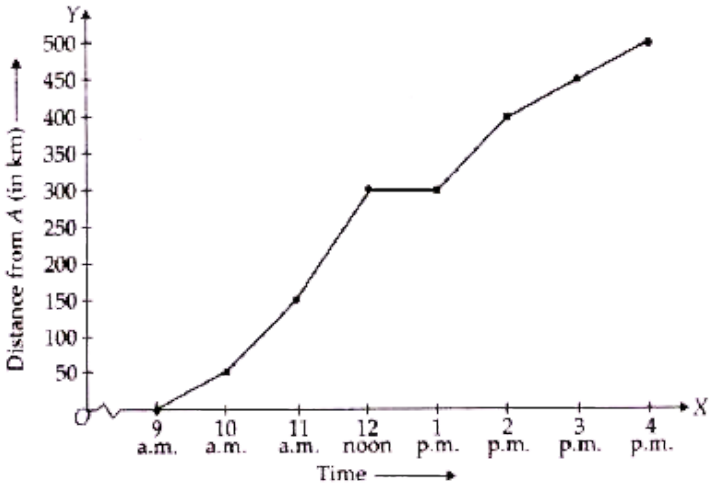
(i) What information is given on the two axes?

(ii) From where and when did the motorcyclist begin its journey?

(iii) How far did the motorcyclist go in the first hour?

(iv) How far did the motorcyclist go during 3rd hour?

(v) When did the motorcyclist reach city B?



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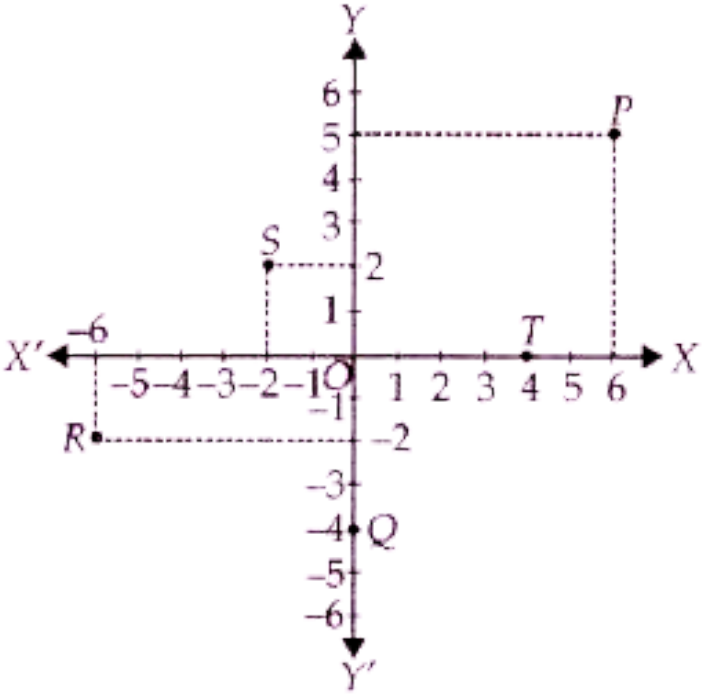
5. Find out coordinates of the points P,Q,R,S,T from the following graph



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6. Plot points P(3,6) and Q(-2,-3) on graph paper (cartesian plane) and locate the quadrant in which these points lie.

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7. The given table shows the quantity of petrol and its cost.

No. of litres of petrol	5	10	15	20
Cost of petrol (in ₹)	300	600	900	1200

Plot a graph to show the data.

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8. Mohan can ride a motorcycle constantly at a speed of 30 kms/hour. Draw a time-distance

graph for this situation. Use it to find

(a) The time taken by Mohan to ride 75 km.

(b) The distance covered by Mohan in 4 hours.

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Solved Examples

1. The given graph describes the distances of a car from a city X at different times when it is travelling from City X to City Y, which are 300 km apart. Study the graph and answer the

following:

(i) What information is given on the two axes?

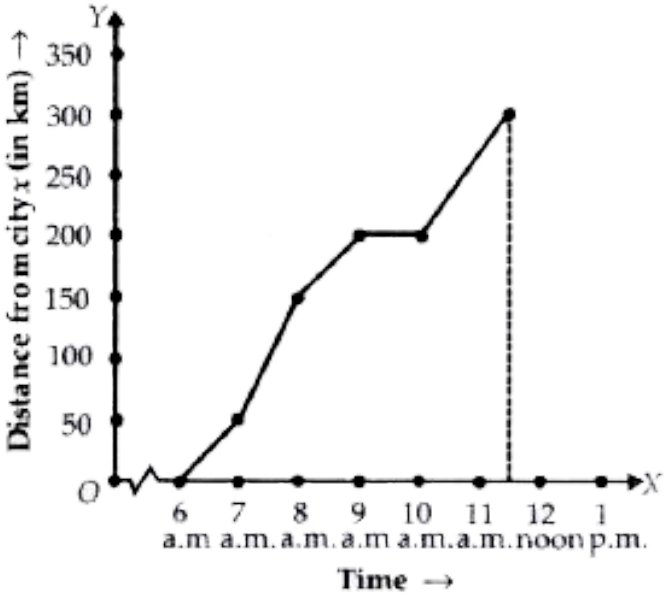
(ii) From where and at what time did the car begin its journey?

(iii) How far did the car go in the first hours?

(iv) Did the car stop for some duration at any place? Justify your answer

(v) Was the speed same during the first three hours? How do you know it?

(vi) When did the car reach City Y?



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2. The sales of a shopkeeper in the first week of january 2012, are given below :

Date	1	2	3	4	5	6	7
Sales (in ₹)	5000	5100	4900	5800	6000	5500	5200

Draw a graph representing the above data.

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3. Plet each of the following points on a graph paper :

A(5,2)

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4. Plet each of the following points on a graph paper :

B(-2,4)

Watch Video Solution

5. Plet each of the following points on a graph paper :

C(-4,-6)

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6. Plet each of the following points on a graph paper :

D(4,-3)

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7. Name the quadrant in which the following points lies:

A(2,2)

Watch Video Solution

8. Name the quadrant in which the following points lies:

B(-2,-6)

Watch Video Solution

9. Name the quadrant in which the following points lies:

C(4,-2)

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10. Draw the graph of the function y= 3x and from the graph , find the value of y, when x=4

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11. Draw the graph of the function y= 3x and from the graph , find the value of y, when x = 5

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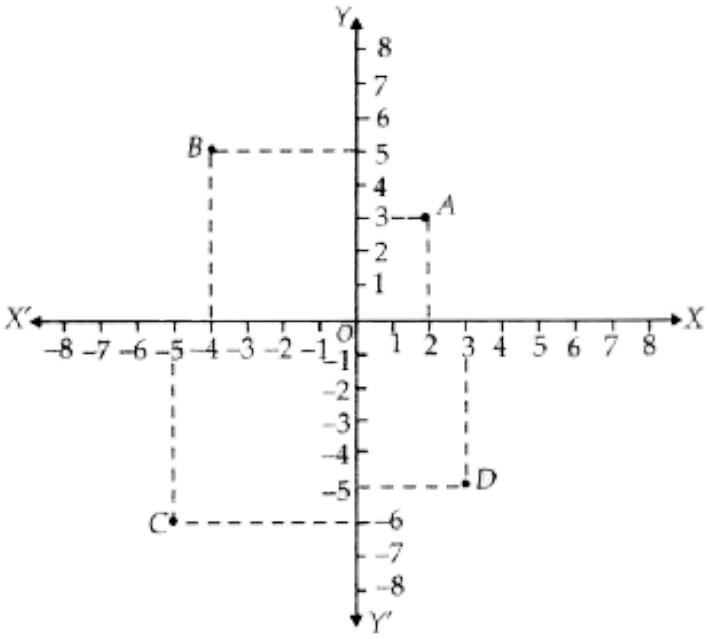
12. Write down the co-ordinates of the following points A,B,C and D marked on the graph paper shown in below graph.



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13. Draw the line graph for the following table:

Number of oranges	1	2	3	4	5
Cost (in ₹)	4	8	12	16	20

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14. Following table gives the temperature at 12

: 00 noon on seven successive days in a city:

Days (November)	1	2	3	4	5	6	7
Temperature (in °C)	14	18	15	16	20	15	18

Draw a line graph.

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15. In which quadrant do the following points lie ?

(6,2)

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16. In which quadrant do the following points lie ?

(-6,8)

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17. In which quadrant do the following points lie ?

(-3,-6)

 Watch Video Solution

18. In which quadrant do the following points lie ?

(2,-3)

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19. Plot the points A(3,0) , B(5,0) and C(8,0) What do you observe ? Where do they lie? Also, plot the points P(0,2) ,Q(0,5) and R(0,9) Do they lie on x- axis?

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20. On which axis do the given points lie?

(0,5)

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21. On which axis do the given points lie?

(-6,0)

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22. On which axis do the given points lie?

(0,-4)

Watch Video Solution

23. On which axis do the given points lie?

(4,0)

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24. When you recharge your mobile , the number of hours of talktime you want will decide the amount you have to pay. If the following information is given how will you plot this line graph?

No. of hours of talktime	5	10	15	20
Cost (in ₹)	100	200	300	400

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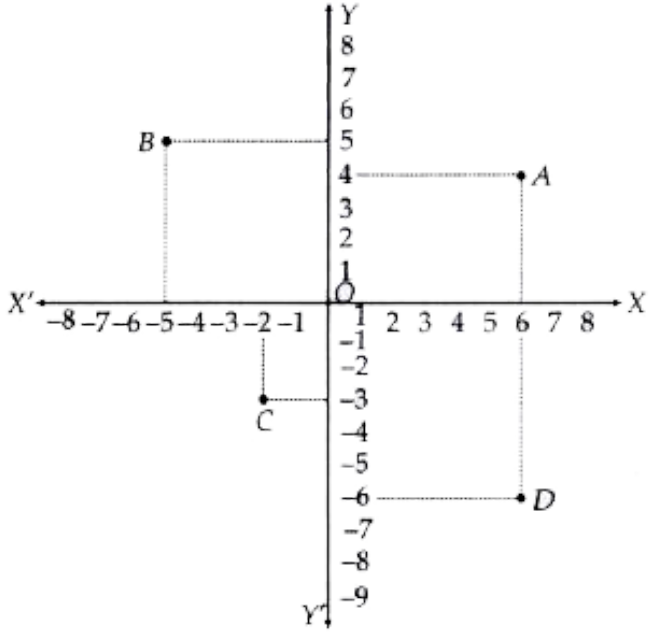
25. Write down the co-ordinates of the following points A,B,C and D marked on the graph paper shown in below graph.



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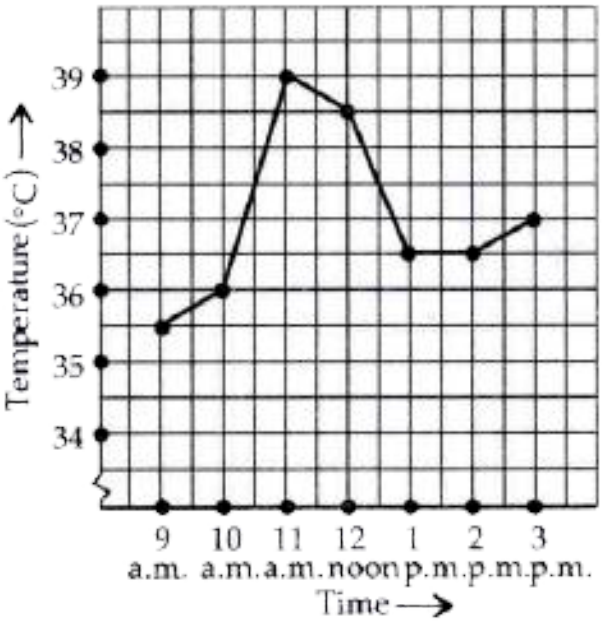
Ncert Sections 15 1

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



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

(b) When was the patient's temperature $38.5^{\circ} C$?

(c) The patient's temperature was the same two times during the period given. What were these two times?

(d) What was the temperature at 1.30 p.m.? How did you arrive at your answer?

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

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2. The following line graph shows the yearly sales figures for a manufacturing company. (a) What were the sales in

(i) 2002 (ii) 2006?

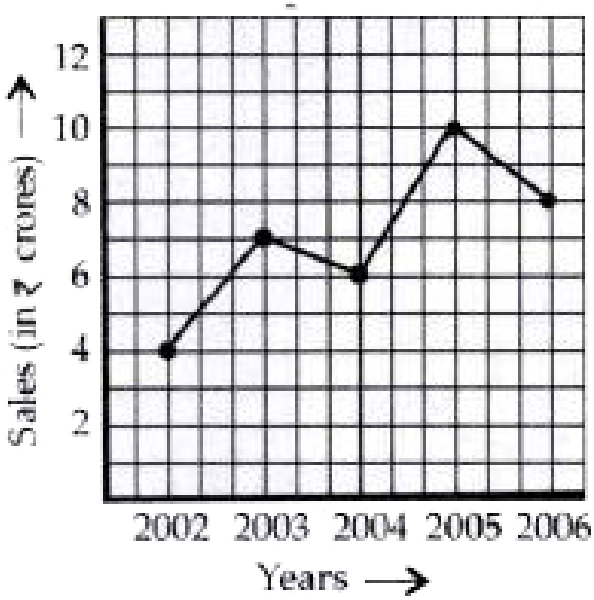
(b) What were the sales in

(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?



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

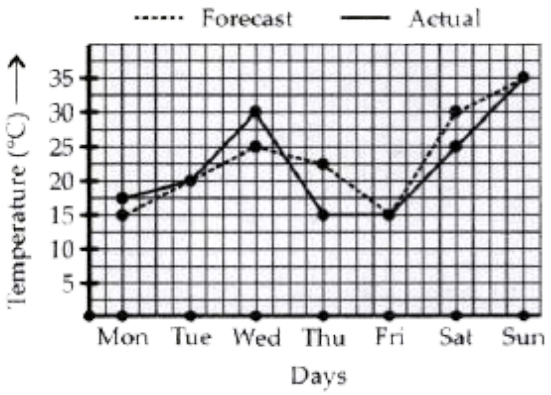
(a) On which days was the forecast temperature the same as the actual temperature?

(b) What was the maximum forecast temperature during the week?

(c) What was the minimum actual temperature during the week?

(d) On which day did the actual temperature differ the most from the forecast

temperature?



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4. Use the tables below to draw line graphs.

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

Year	2003	2004	2005	2006
Days	8	10	5	12

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5. 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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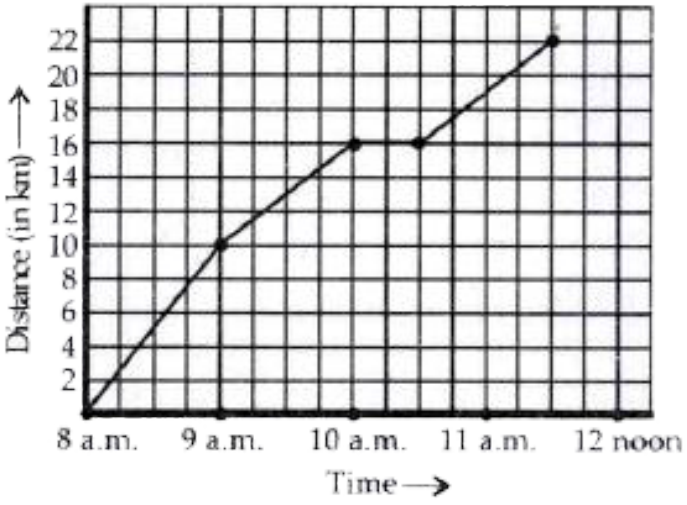
6. A courier- person cycles from a town to a neighbouring suburban area to deliver a parcel to a merchant. His distance from the

town at different times is shown by the following graph.

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



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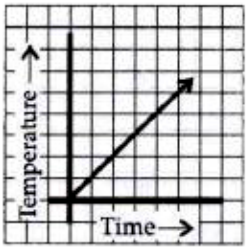
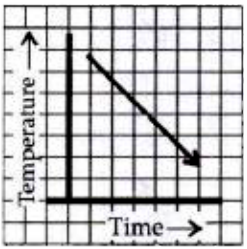
7. Can there be a time- temperature graph as follows? Justify your answer.

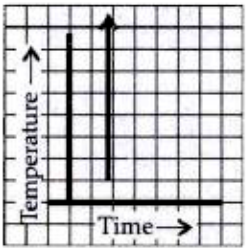
(i)



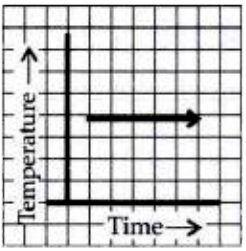
(ii)



(iii)



(iv)



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Ncert Sections 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)

Watch Video Solution

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(4,25)

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4. Draw the line passing through (2, 3) and (3, 2). Find the coordinates of the points at which this line meets the x-axis and y-axis.

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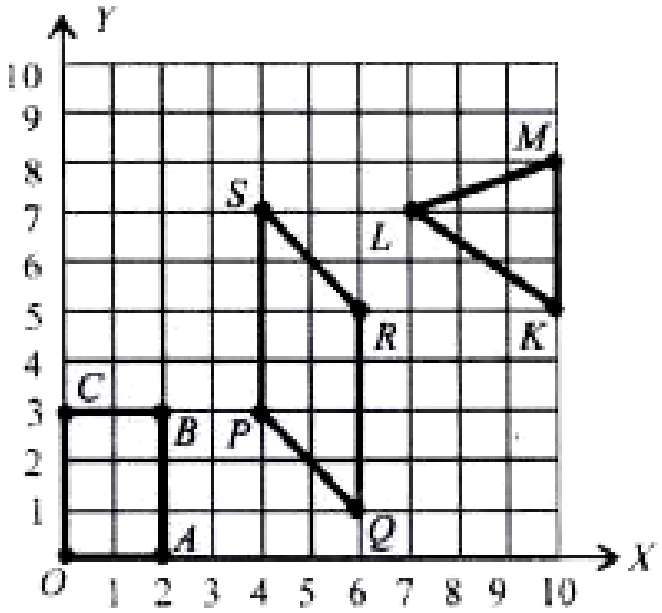
5. Write the coordinates of the vertices of each of these adjoining figures.



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

(i) A point whose x- coordinates is zero and y-coordinates is non-zero will lie on the y - axis.

(ii) A point whose y-coordiantes is zero and x-coordinates is 5 will lie on y-axis.

(iii) The coordinates of the origin are (0,0) .

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Ncert Sections 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. Distance travelled by a car

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

(i) How much distance did the car cover during the period 7.30 a.m. to 8 a.m. ?

(ii) what was the time when the car had covered a distance of 100 km since It's start?

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3. Interest on deposits for a year.

(i) Does the graph pass through the origin?

(ii) Use the graph to find the interest on rupes 2500 for a year.

(iii) To get an interest of rupes 280 per year, how much money should be deposited?

Deposit (in ₹)	1000	2000	3000	4000	5000
Cost in (₹)	80	160	240	320	400

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4. 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?

(ii)

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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Exercise Multiple Choice Question Level 1

1. The point A(3,0) lies on

A. x-axis

B. y-axis

C. both axes

D. none of these

Answer:

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2. To draw the graph of a line, the least number of points required is

A. One

B. Two

C. Three

D. Four

Answer:

Watch Video Solution

3. Do the points A(2, 3) and B(3, 2) have the same location on the graph?

A. Sometimes

B. No

C. Yes

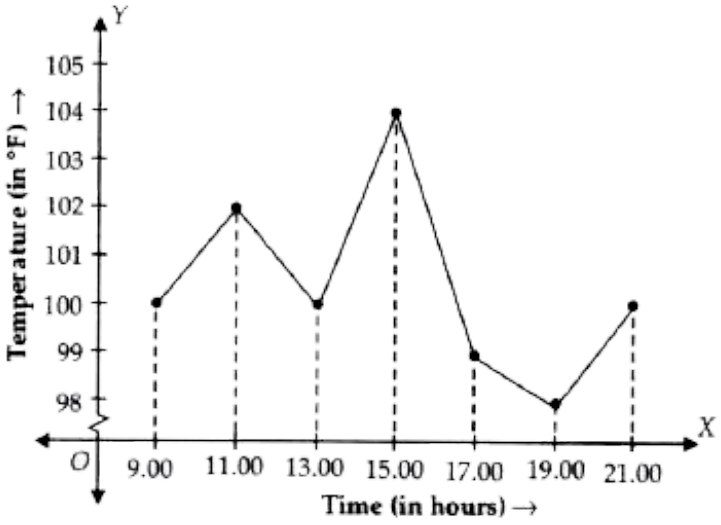
D. none of these

Answer:

Watch Video Solution

4. Observe the graph and answer the following questions.

The information given by the graph is:



A. Time - temperature graph

B. Velocity - time graph

C. Pressure - volume graph

D. none of these

Answer: A

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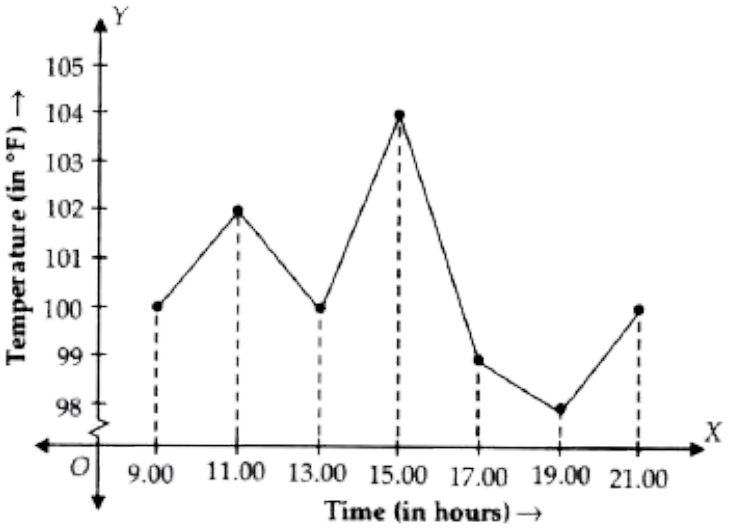
5. Observe the graph and answer the following questions.

The temperature of the patient at 11.00 hours

is



A. 99° F

B. 102° F

C. 98° F

D. $106^\circ F$

Answer: B

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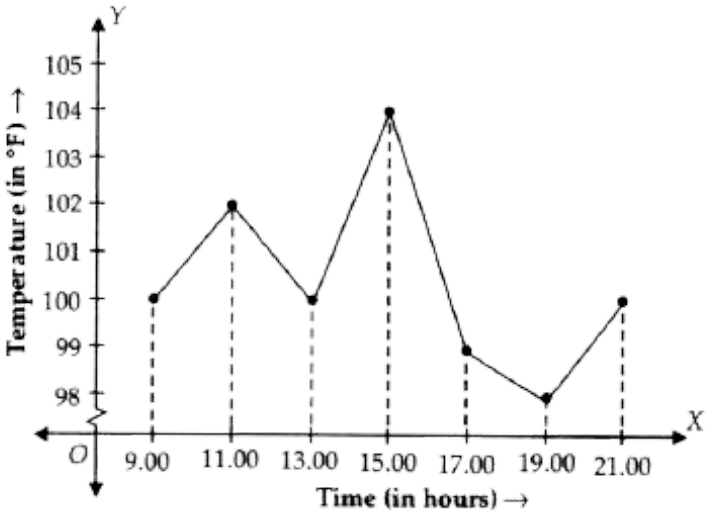
6. Observe the graph and answer the following questions.

The temperature of the patient at 15: 00 hours is



A. 90° F

B. 95° F

C. 104° F

D. 99° F

Answer: C

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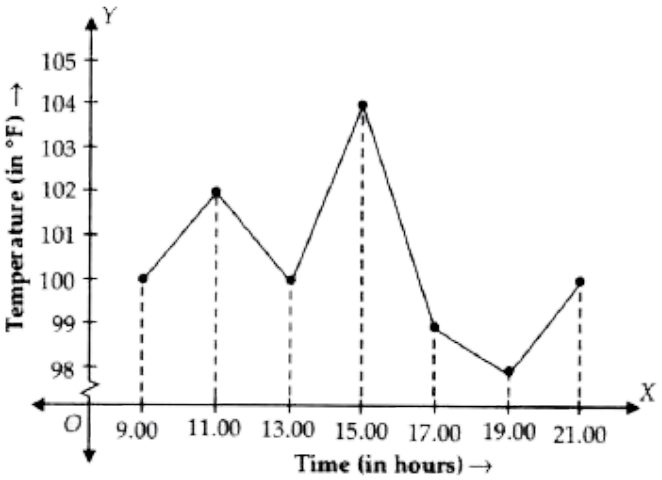
7. Observe the graph and answer the following questions.

The temperature is maximum at



A. 11:00 hours

B. 13:00 hours

C. 15: 00 hours

D. 19: 00 hours

Answer:

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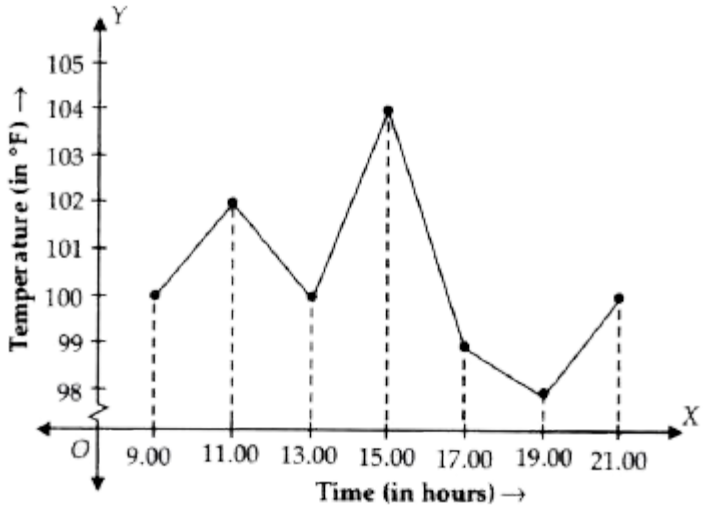
8. Observe the graph and answer the following questions.

The temperature is minimum at



A. 19: 00 hours

B. 15 : 00 hours

C. 16 : 00 hours

D. 9: 00 hours

Answer:

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9. The abscissa of the point (3,5) is

A. 3

B. 5

C. 0

D. 15

Answer:

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10. The point (5,0) lies on

A. x -axis

B. y-axis

C. can't be determined

D. none of these

Answer:

Watch Video Solution

11. The x-axis is also known as

A. Vertical axis

B. Horizontal axis

C. Ordinate

D. none of these

Answer:

Watch Video Solution

12. The y-axis is also known as

A. Abscissa

B. Horizontal axis

C. Vertical axis

D. none of these

Answer:

Watch Video Solution

13. The ordinate of the point (6,2) is

A. 0

B. 4

C. 2

D. 6

Answer:

Watch Video Solution

14. The abscissa of the point (-3,5) is

A. -3

B. 5

C. -15

D. -10

Answer:

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15. The point (-3,-7) lies in the

A. I quadrant

B. II quadrant

C. III quadrant

D. IV quadrant

Answer:

 Watch Video Solution

16. The point (3,-4) lies in the

A. I quadrant

B. II quadrant

C. III quadrant

D. IV quadrant

Answer:

 Watch Video Solution

17. The point (0,0) lies on the

A. y-axis

B. x-axis

C. both axes

D. none of these

Answer:

Watch Video Solution

18. The point (0,5) lies on the

A. x -axis

B. y-ais

C. both axes

D. none of these

Answer:

 Watch Video Solution

19. The graph y=3 is .....

A. the x-axis

B. the y-axis

C. a line parallel to x-axis

D. a line parallel to y-axis

Answer:

 Watch Video Solution

20. Do the points (1,-1) and (-1,1) have same location on the graph

A. Yes

B. No

C. Sometimes

D. none of these

Answer:

 Watch Video Solution

21. The equation of y-axis is

A. x=0

B. y=0

C. x=a

D. y=a

Answer:

Watch Video Solution

22. The point (-4,5) lies in ..... Quadrant.

A. I

B. II

C. III

D. IV

Answer:

Watch Video Solution

23. Which of the following do not lie on y-axis?

A. (0,5)

B. (0,-2)

C. $(-3, 0)$

D. $(0, 7)$

Answer:

Watch Video Solution

24. Which of the following do not lie on x-axis?

A. (15,0)

B. $(-5, 0)$

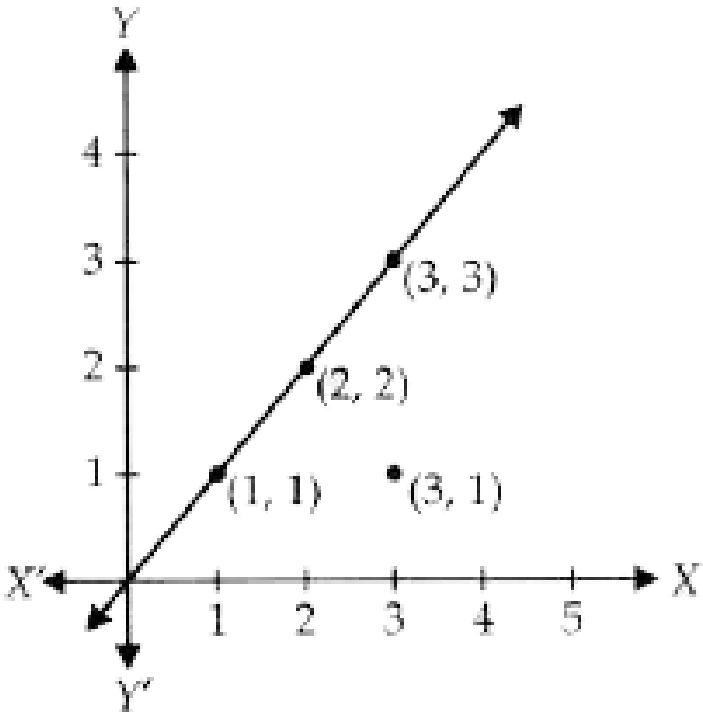
C. $(0, -3)$

D. $(10, 0)$

Answer:

Watch Video Solution

25. Observe the graph and identify the points which are not collinear.



A. (1,1)

B. (3,1)

C. (2,2)

D. (3,3)

Answer:

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26. The graph given below shows the maximum temperature during the last week of April. The maximum temperature 35° C was on

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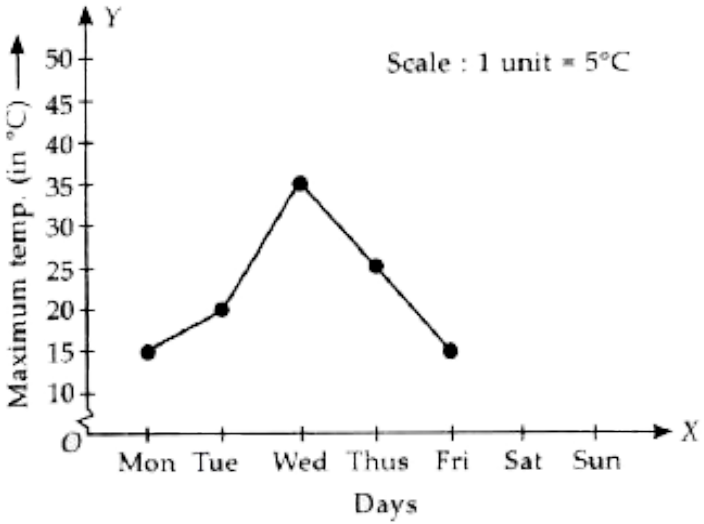

A. Monday

B. Tuesday

C. Thursday

D. Wednesday

Answer:

Watch Video Solution

27. Which of the following points lie on the Y-axis ?

A. (0,6)

B. (-1,0)

C. (7,0)

D. (4,0)

Answer:

Watch Video Solution

28. State the quadrant in which point $(-4, -4)$ lies.

A. I

B. II

C. III

D. IV

Answer:

Watch Video Solution

29. The x- coordinate of every point is zero at

A. x-axis

B. y-axis

C. origin

D. both (b) and (c)

Answer:

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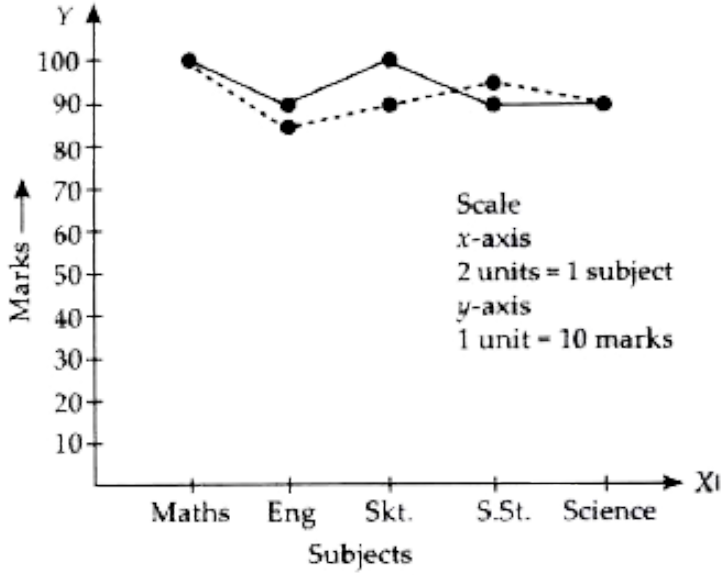
30. Tanvishi is one of the best students. Her predicted marks in class VIII and her actual marks are shown in the graph. The dotted line represents the predicted marks and the solid line represents the actual marks. In _____she got more marks than the predicted marks.



A. Maths

B. Science

C. Sanskrit

D. S.St

Answer:

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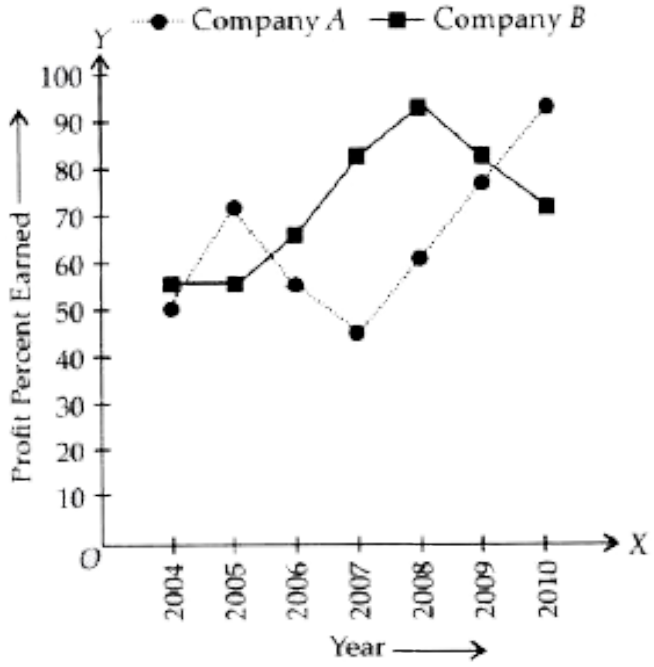
Exercise Multiple Choice Question Level 2

1. Study the following graph carefully to answer these questions.

Profit percent Earned by Two companies Producing Electronic Goods over the Years

Profit % = $\frac{\text{Profit Earned}}{\text{Total Investment}} \times 100$

Profit Earned = Total Income - Total Invesment in the year



If the income of Company A in 2007 and 2008 was equal and the amount invested in 2007 was rupes 12 lakhs, what was the amount invested in 2008?

A. rupes 10,87,500

B. rupes 10,85, 700

C. rupes 12,45 ,000

D. 12,85,000

Answer:

Watch Video Solution

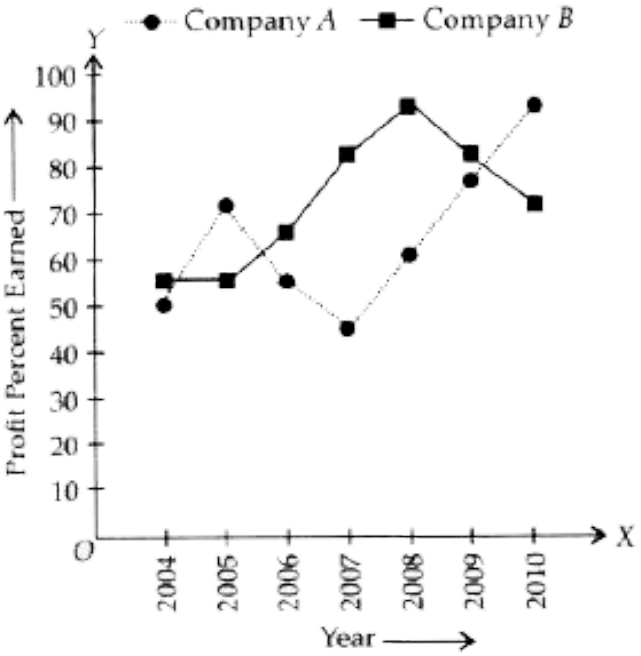
2. Study the following graph carefully to answer these questions.

Profit percent Earned by Two companies Producing Electronic Goods over the Years

$$\text{Profit \%} = \frac{\text{Profit Earned}}{\text{Total Investment}} \times 100$$

Profit Earned = Total Income - Total Invesment

in the year



If the amount invested by Comapany B in 2004 was rupes 12 lakhs and the income of 2004 is equal to the investment is 2005, what was the

amount of profit earned in 2005 by Company B?

A. rupes 6.6 lakhs

B. rupes 18.6 lakhs

C. rupes 10.23 lakhs

D. rupes 2.6 lakhs

Answer:

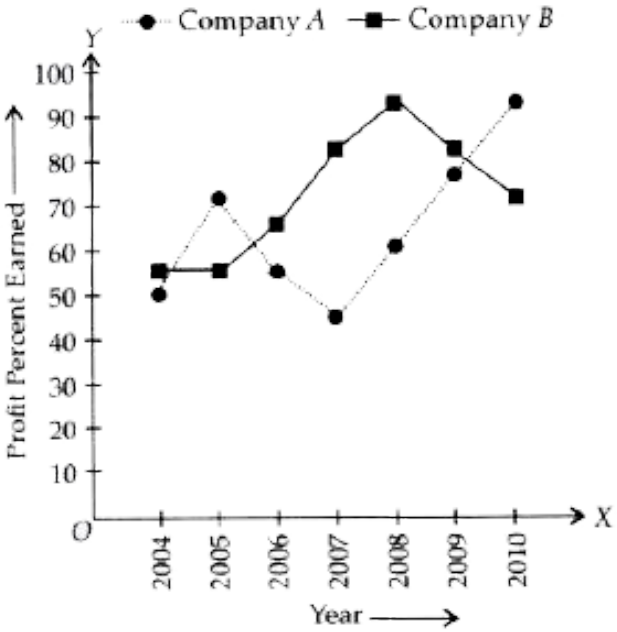
Watch Video Solution

3. Study the following graph carefully to answer these questions.

Profit percent Earned by Two companies Producing Electronic Goods over the Years

Profit % = $\frac{\text{Profit Earned}}{\text{Total Investment}} \times 100$

Profit Earned = Total Income - Total Invesment in the year



If the investments of Company A in 2007 and 2008 were equal, what is the difference between profit earned in two years if the income in 2008 was 24 lakhs?

A. रु 2.25 lakhs

B. रु 3.6 lakhs

C. रु 1.8 lakhs

D. रु 2.6 lakhs

Answer:

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4. (0,-5) lies on/in _____

A. x-axis

B. y-axis

C. III quadrant

D. IV quadrant

Answer:

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5. From the graph of the equation y = 2x, find the value of y at x = 2.

A. 2

B. -2

C. 4

D. -4

Answer:

Watch Video Solution

6. Which of the following points lies on the X-axis?

(i) (4.0)

(ii) (5,0)

(iii) (0, -2)

(iv) (0,0)

A. (i) and (ii)

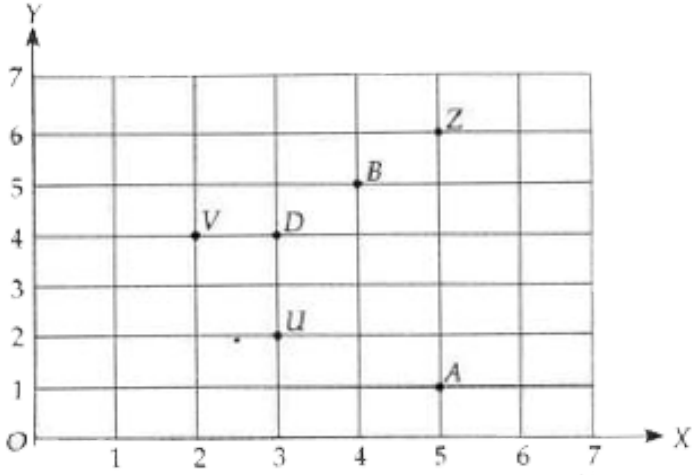
B. (i), (ii), (iv) and (iii)

C. (i), (ii) and (iv)

D. Only (iv)

Answer:

7. Study the following graph .



On the basis of above graph, coordinates of U and Z are

A. (5, 1) and (3, 2)

B. (1,5) and (2,3)

C. (2, 3) and (6,5)

D. (3, 2) and (5,6)

Answer:

Watch Video Solution

8. The y-coordinate of a point is the distance of that point from

A. y-axis

B. origin

C. x-axis

D. zero

Answer:

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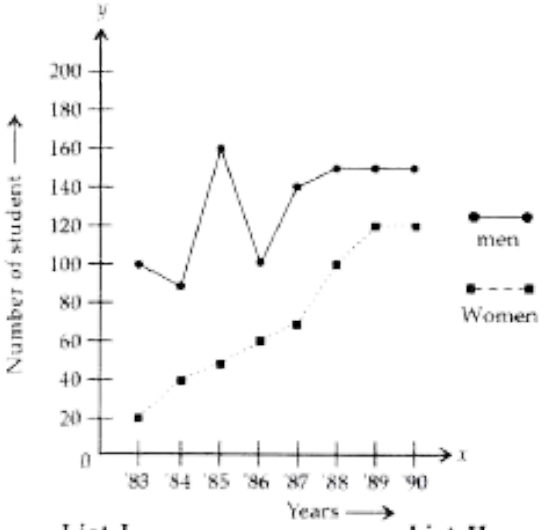
Exercise Match The Following

1. Match the following



List-I	List-II
(P) The number of men participants are	(1) 87-88 years
(Q) The number of women participants are	(2) 89-90 years
(R) In which year the difference in the number of men and women participants is least?	(3) 580
(S) Between which years did number of women participants increase the most?	(4) 1040

A. P-3,Q-2,R-1,S-4

B. P-4,Q-3,R-2,S-1

C. P-1,Q-4,R-3,S-2

D. P-2,Q-4,R-3,S-1

Answer:

 Watch Video Solution

2. Match the following

List-I		List-II
(P)	(2, 3)	(1) II quadrant
(Q)	(−4, 3)	(2) III quadrant
(R)	(2, −7)	(3) I quadrant
(S)	(−4, −6)	(4) IV quadrant

A. P-3,Q-4,R-1,S-2

B. P-1,Q-3,R-4,S-2

C. P-4,Q-3,R-2,S-1

D. P-3,Q-1,R-4,S-2

Answer:

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Exercise Assertion Reason Type

1. Assertion : Coordinate of a point on the y-axis is (0, y).

Reason : Abscissa (x-axis) is 0 on y-axis

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer:

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2. Assertion : (4,3) $\neq$ (3, 4).

Reason : We write the two numbers in a specific order to plot the points on coordinate plane.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer:

Watch Video Solution

3. Assertion : In a Distance-Time graph, time represents the independent variable.

Reason : Time is represented on y-axis and distance on x-axis.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer:

4. Assertion : P(5, 4) is at 5 units from y-axis.

Reason : Abscissa is the distance of a point from y-axis.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer:

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5. Assertion : M(3, 2) is at 2 units from y axis.

Reason : Ordinate is the distance of a point from x axis.

A. If both assertion and reason are true and reason is the correct explanation of assertion.

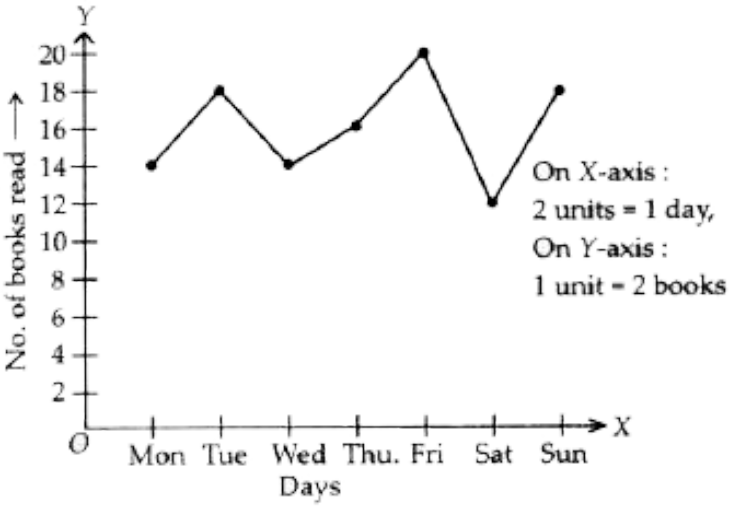
B. If both assertion and reason are true but reason is not the correct explanation of assertion.

C. If assertion is true but reason is false.

D. If assertion is false but reason is true.

Answer:

6. The following graph shows the number of books read by Ashok in a week.



How many books Ashok read on Monday and Tuesday altogether?

A. 14

B. 18

C. 32

D. 30

Answer:

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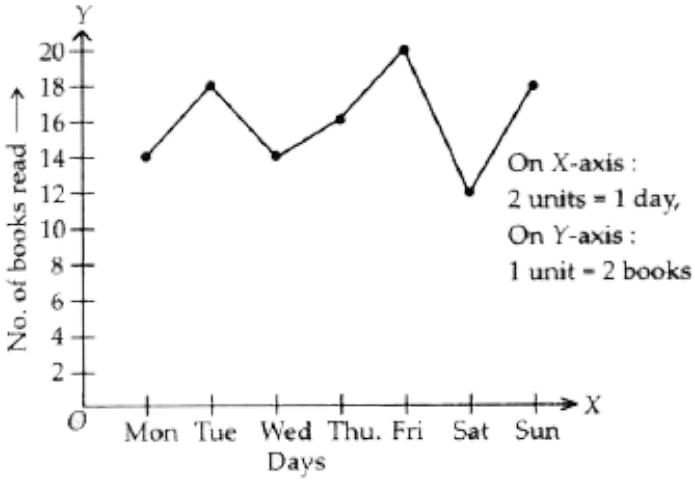
7. The following graph shows the number of books read by Ashok in a week.

Find the ratio of number of books read on Tuesday and Wednesday together to the total

number of books, read.



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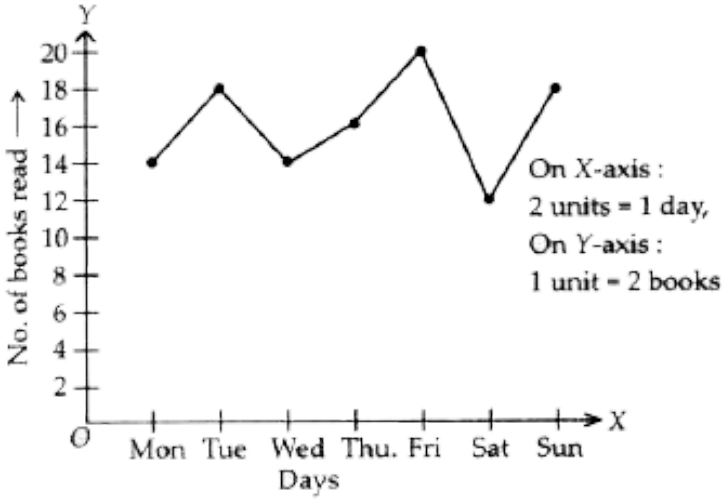
8. The following graph shows the number of books read by Ashok in a week.

On which day Ashok read the maximum

number of books?



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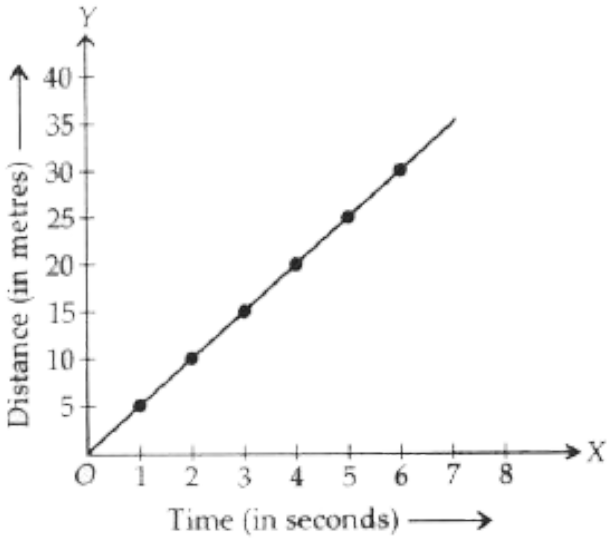
Exercise Subjective Problems Very Short Answer Type

1. Given below is the distance vs time graph d=5t , where d is distance and t is time. Read the graph carefully and answer the questions given below:



Find the distance covered when time is 3 sec.

(ii) Find the distance covered in 5 seconds.

(iii) Find the time in which the body covered 30 m.

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2. Plot the following points on a graph paper:

(3,2)

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3. Plot the following points on a graph paper:

(2,2)

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4. Given the ordinate and abscissa for each of the following points:

A(2,3)

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5. Given the ordinate and abscissa for each of the following points:

B(3,2)

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6. Given the ordinate and abscissa for each of the following points:

C(0,7)

Watch Video Solution

7. Given the ordinate and abscissa for each of the following points:

D(3,0)

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8. Plot any three points such that x-coordinate of each point is equal to its y-coordinate. Join these points in pairs. Do they lie on a line passing through the origin?

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9. The following table gives the information regarding the number of persons employed to do a piece of work and time taken to complete

the work:

Number of persons	2	4	6	8
Time taken in days	12	6	4	3

Plot the line graph for this information.

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10. Draw the graph of $y = 3x + 1$.

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11. If in a point abscissa is negative and ordinate is positive , then in which quadrant the point lies.

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12. A stone is dropped off the edge of a cliff. The height (h metres) of the cliff is proportional to the square of the time (t seconds) taken by the stone to reach the ground.

Write down a relationship between h and t, using k as the constant of variation.

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13. A stone is dropped off the edge of a cliff. The height (h metres) of the cliff is proportional to the square of the time (t seconds) taken by the stone to reach the ground.

Calculate the value of k, using the information,

"The stone takes 5 seconds to reach the ground when dropped off a cliff, 125 m high.'

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14. A car is going for a long journey of 16 hours, 4. starting at 5:00 hrs. The speeds of the car at different hours are given below: Draw a velocity-time graph for the above data.

Time (in hours)	5.00	7.00	9.00	11.00	13.00	15.00	17.00	19.00	21.00
Speed (in km/hr)	40	50	60	80	70	65	75	60	50

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15. The prices of different lengths of ladder (in m) is shown in the following table:

Length of ladder	10	12	14	16	18	20
Price of ladder (in ₹)	70	80	90	100	110	120

Represent this information by a graph.

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16. The perimeter P and sides of a square are connected by the relation $P = 4s$. Draw the

graph of this relation on the graph paper.

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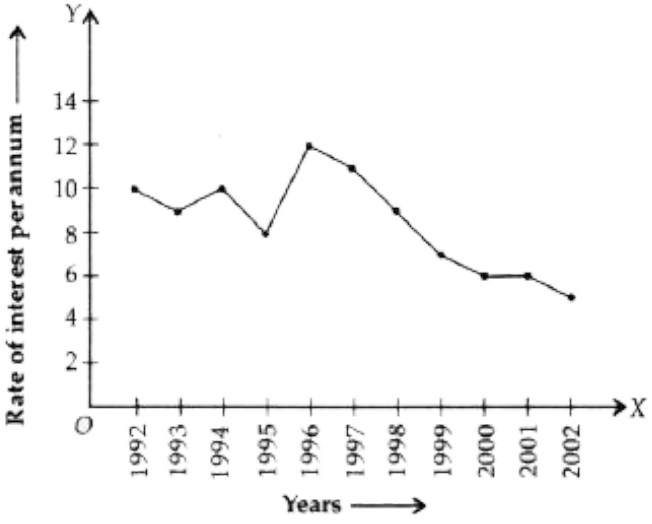
17. The graph exhibits the rate of interest on fixe deposits upto one year announced by the Reserve Bank of India in different years. Read the graph and find :



(i) In which period was the rate of interest maximum?

(ii) In which period was the rate of interest minimum?

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18. From the data given below, draw a linear graph showing the relationship between the cost of trousers and the number of trousers.

Number of trousers	1	2	3	4	5
Cost (in ₹)	120	240	360	480	600

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19. Simple interest on a certain sum is 40 per year. Then, S= $40 \times X,$ where X is the number of years.

Find the value of S, when

(i) X=5 (ii) X=6.

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Exercise Subjective Problems Very Short Answer Type

1. We know that area of a square = $(\text{side})^2$?

Thus $A = x^2$.

Find the value of A, when

(i) x=4 (ii) x= 3

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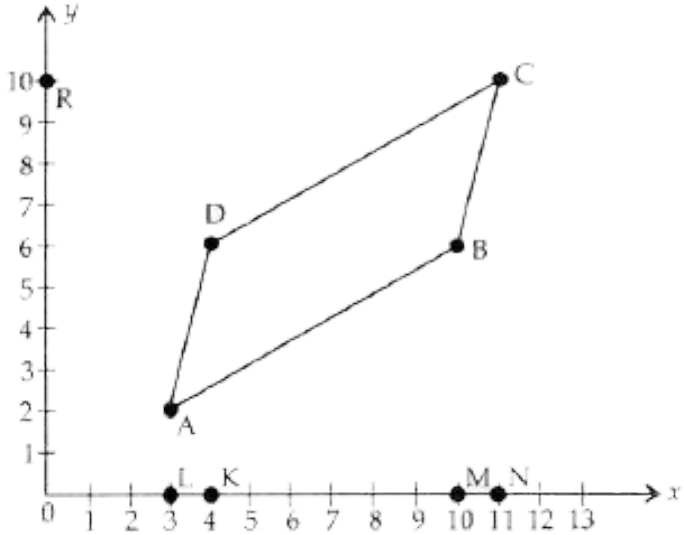
Exercise Subjective Problems Short Answer Type

1. Write the coordinates of the vertices of the following figure:



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2. The runs scored by a cricket team in first 10 overs are given below:

Overs	I	II	III	IV	V	VI	VII	VIII	IX	X
Runs	2	3	1	6	4	3	8	12	4	10

Draw a line graph representing the above data.

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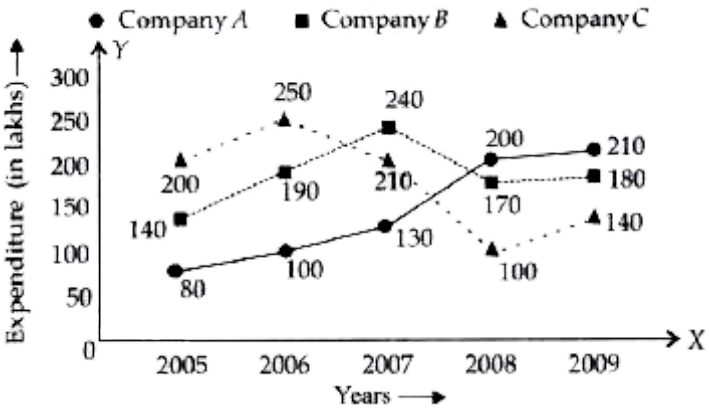
Exercise Subjective Problems Long Answer Type

1. Study the following graph carefully to answer the questions given below. Expenditure in lakhs) of three different Companies in Five Different Years



What was the average expenditure of Company C over all the years together?

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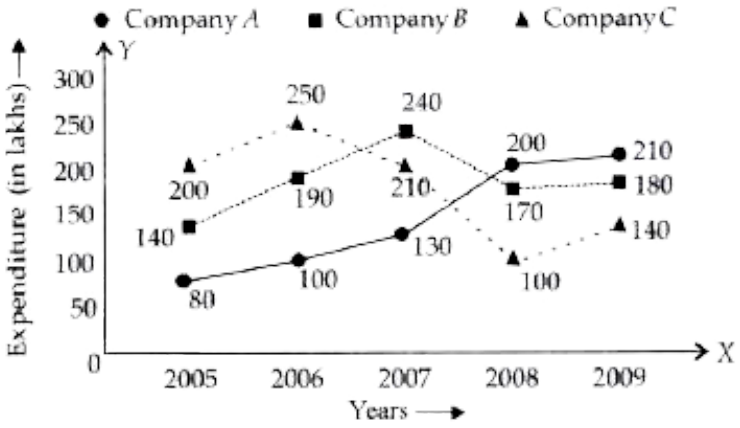
2. Study the following graph carefully to answer the questions given below. Expenditure in lakhs) of three different

Companies in Five Different Years



What was the difference between the total expenditure of Company B in the year 2006 and 2008 together and the total expenditure of Company C in the year 2007 and 2009 together?

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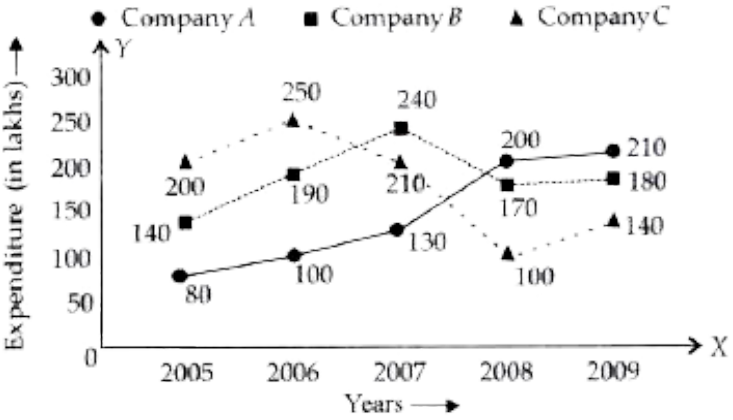
3. Study the following graph carefully to answer the questions given below. Expenditure in lakhs) of three different Companies in Five Different Years



What was the ratio of the expenditure of Company A in the year 2009 to the expenditure of Company B in the year 2005?

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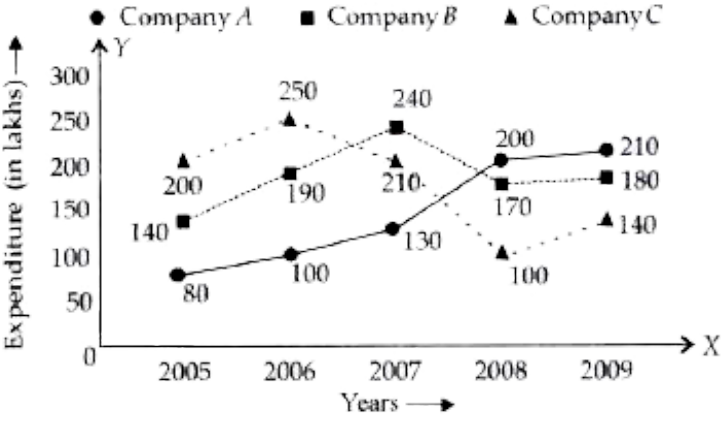
4. Study the following graph carefully to answer the questions given below. Expenditure in lakhs) of three different Companies in Five Different Years



In which year was the total expenditure by all the three companies together second highest?

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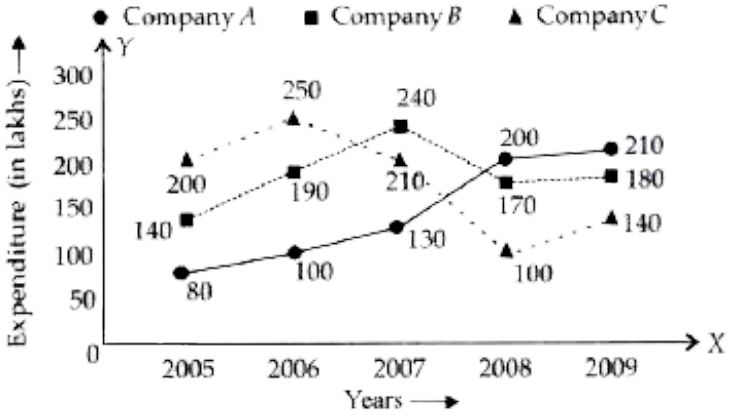
5. Study the following graph carefully to answer the questions given below. Expenditure in lakhs) of three different Companies in Five Different Years



Total expenditure of all the three companies together in the year 2006 was what

Percentage of the total expenditure of Company A over all the years together?

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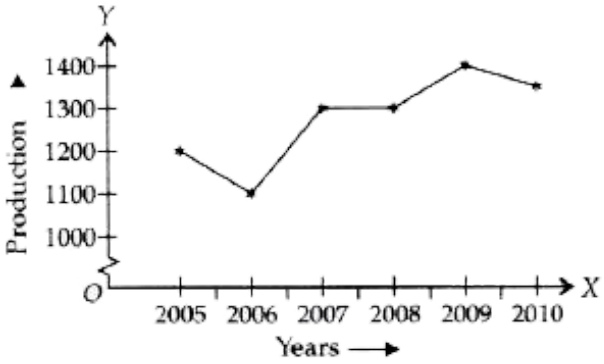
Exercise Integer Numerical Value Type

1. The percent rise in production in 2007 from 2006 is x %. Find the value of x



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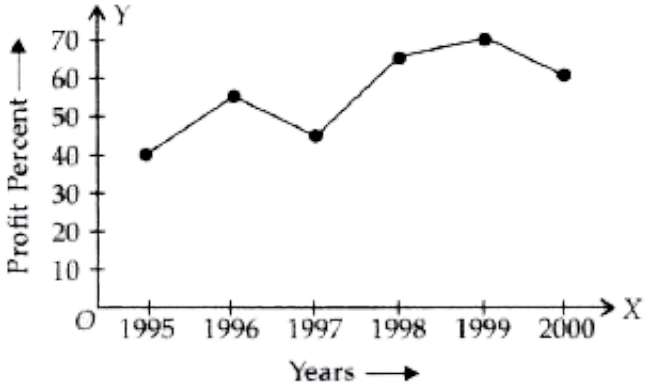
2. The following line-graph gives the annual profit percent earned by a Company during the period 1995-2000. Study the line-graph and answer the questions that are based on it. Profit Percent Earned by a Company Over the Years

$$\% \text{ Profit} = \frac{\text{Income - Expenditure}}{\text{Expenditure}} \times 100$$



If the income in 1998 was ₹ 264 crores, the expenditure in 1998 is 'k crores. The ten's digit of k is

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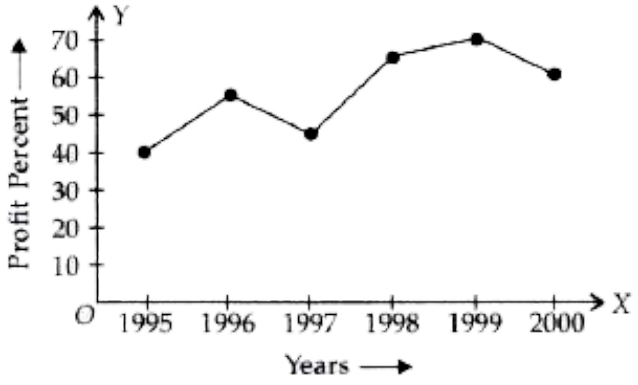
3. The following line-graph gives the annual profit percent earned by a Company during the period 1995-2000. Study the line-graph and answer the questions that are based on it.

Profit Percent Earned by a Company Over the Years

$$\% \quad \text{Profit} \quad = \frac{\text{Income - Expenditure}}{\text{Expenditure}} \times 100$$



Find the difference between profit percent in 1998 and 1999.

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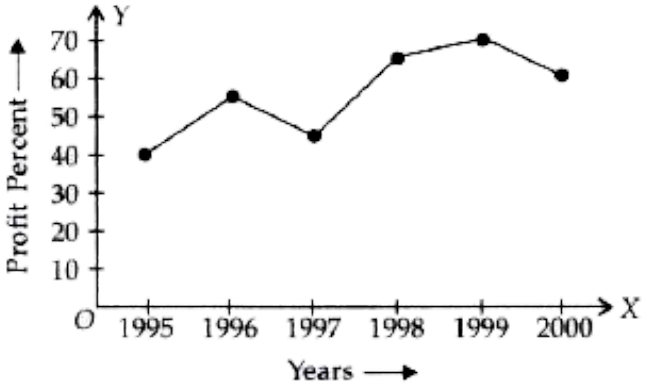
4. The following line-graph gives the annual profit percent earned by a Company during the period 1995-2000. Study the line-graph and answer the questions that are based on it. Profit Percent Earned by a Company Over the Years

$$\% \quad \text{Profit} \quad = \frac{\text{Income - Expenditure}}{\text{Expenditure}} \times 100$$



Find the average profit percent earned in given years

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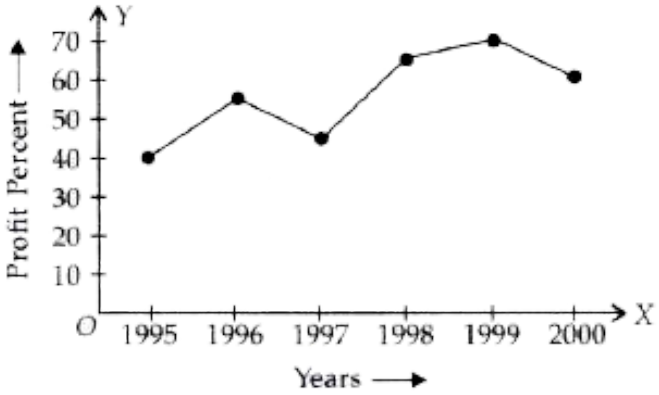
5. The following line-graph gives the annual profit percent earned by a Company during the period 1995-2000. Study the line-graph and

answer the questions that are based on it.

Profit Percent Earned by a Company Over the Years

$$\% \quad \text{Profit} \quad = \frac{\text{Income -Expenditure}}{\text{Expenditure}} \times 100$$



If the expenditure in 1996 and 1999 are equal, then the ratio of the incomes in 1996 to the 1999, is m: n. Find m + n.

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Olympiad Hots Corner

1. Plotting the following points, check which are not forming linear graph?

A. L(4,2), M(4,3), N(4,6),Q(4,7)

B. u(2,5), V(2,3), W(2,6), X(2,7)

C. A(1, 1), B(2, 2), C(3, 3), D(4,4)

D. R(1, 1), S(2,4), T(3, 2), U(4,1)

Answer:

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2. Plotting any three points such that x-coordinate of each point is equal to double of its y-coordinate and Joining these points in pairs, we get points lie on A passing through B.

A. $\begin{array}{ccc} & A & B \\ (a) & \text{y- axis} & \text{origin} \end{array}$

B. $\begin{array}{ccc} & A & B \\ (b) & \text{Straight line} & \text{origin} \end{array}$

C. $\begin{array}{ccc} & A & B \\ (c) & \text{x-axis} & \text{origin} \end{array}$

D. None of these

Answer:

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3. Points (5,0),(5,1),(5,8) lie on

A. x -axis

B. a line parallel to x-axis

C. y - axis

D. a line parallel to y-axis

Answer:

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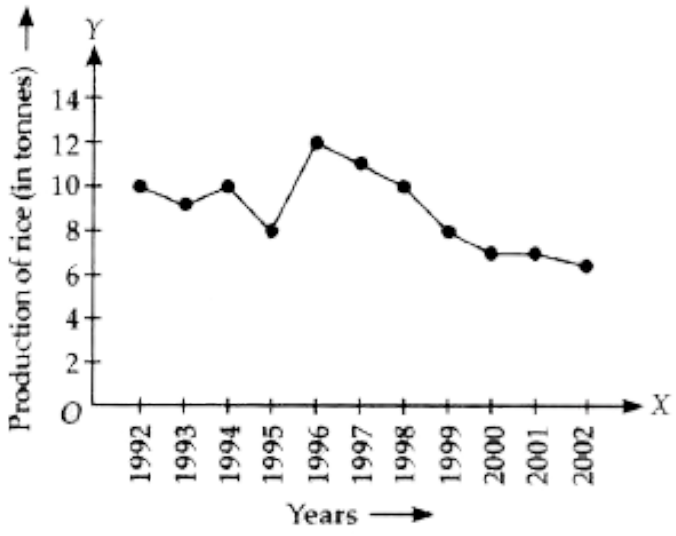
4. The graph shown in figure exhibits the production of rice for different years. Read the graph and find, in which period was the production remains constant?



A. $1997 - 1998$

B. $1994 - 1998$

C. $2000 - 2001$

D. $1996 - 1997$

Answer:

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5. From the graph of the equation 2y-3x-4=0 find which point on graph cuts the y-axis

A. (0,1)

B. (0,2)

C. (0,4)

D. (0,3)

Answer:

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