

# DCA CLASSES

## CLASS VIII – MATHEMATICS – CHAPTER 15

### INTRODUCTION TO GRAPHS

Name:

Date:

**Q01.** State true or false

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

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

(c). A point whose y-coordinate is zero and x-coordinate is 4 will lie on y axis.

**Q02.** Hundred Students from a certain locality use different modes of traveling to school as given below. Draw a bar graph.

Bus	Car	Rickshaw	Bicycle	Walk
32	16	24	20	8

**Q03.** Draw a graph for the following. Is it a linear graph?

Distance in meters	5	10	15	20	25	30
Time in seconds	1	2	3	4	5	6

**Q04.** In a class of 40 students, the marks obtained (out of 50) are as given below:

Marks	0-10	10-20	20-30	30-40	40-50
No. of students (frequency)	5	10	12	8	5

Draw a histogram to represent the given data.

**Q05.** Draw the graph for a function  $A = x^2$ . Make a table when the side of a square is 2 cm, 3 cm, 4 cm, 5 cm, 6 cm and 7 cm. Is it a linear graph?

**Q06.** Plot the following points on a graph.

A(4, 3), B (2, 6) C (-2, -3), D (-3, 5), (1, 3), (2, 3), (3, 3), (4, 3)

**Q07.** Mr. Mirza's monthly income is Rs 7,200. He spends Rs 1,800 on rent, Rs. 2,700 on food, Rs 900 on education of his children, Rs 1,200 on others and saves the rest. Draw a piechart to represent it.

**Q08.** Reena deposited Rs. 12000 in a bank at the rate of 10% per annum. Draw a linear graph showing the relationship between the time and simple interest. Also, find the simple interest for 4 years.

**Q09.** Mayank deposited Rs. 1400 in a bank at the rate of 10% per annum. Draw a linear graph which shows the relationship between time and the interest earned by Mayank.

**Q10.** Parul is driving a car constantly at a speed of 30 km/h. Draw a distance-time graph in this case. Also, find the time taken by Parul to cover a distance of 120 km.

**Q11.** Make a table of values for the function  $y = 3x$ . From the table find the values of y when  $x = 4$  and  $x = 5$ .

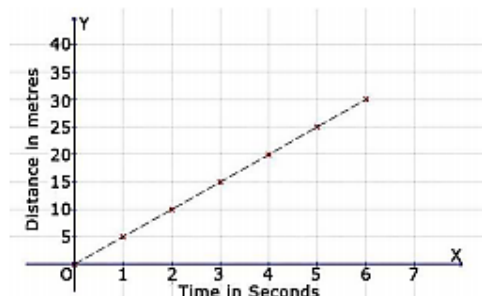
**Q12.** Draw the line passing through (2, 3) and (3, 2). Find the coordinates of the points at which this line meets the x-axis and y-axis.

**Q13.** A bank gives 10% simple interest on savings account. Draw a linear graph to show the relationship between the sum deposited and simple interest earned. Also, answer the following questions:

(a). Find the interest earned on an investment of Rs. 300.

(b). What investment should be made to earn Rs.70 as interest?

**Q14.** Find the distance covered in 3 seconds.

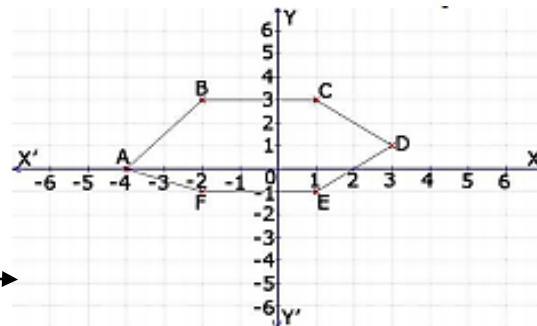


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**Q16.** A train is moving at a constant speed of 75 km/h.

Draw a distance – time graph.

- a. How far will it travel in 2 hours 30 minutes?
- b. Find the time required to cover a distance of 300 km.

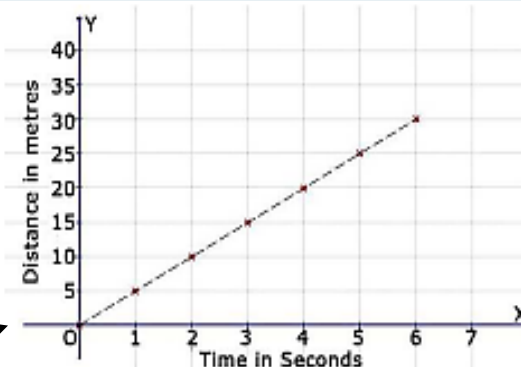


**Q15.** Find the coordinates of the points A, B, C, D, E and F from the graph.

**Q21.** Draw the graph for the following table of values. Interest on deposits for a year:

Deposit in Rs	1000	2000	3000	4000	5000
Interest in Rs	60	120	180	240	300

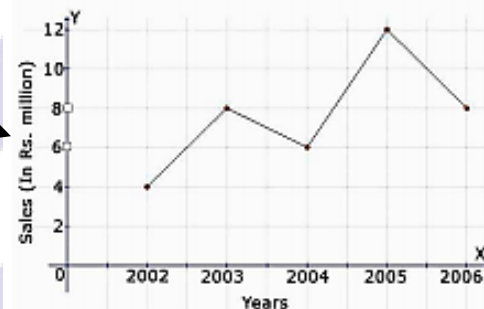
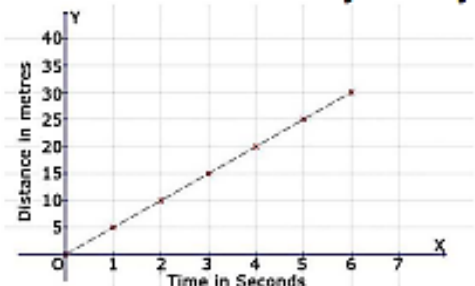
- (a). Use the graph to find the interest on a deposit of Rs 4500 for a year.
- (b). To get an interest of Rs 420, how much money should be deposited?
- (c). Does the graph pass through origin?



**Q17.** Find the distance covered in 5 seconds.

**Q18.** The line graph shows the yearly sales figure for a manufacturing company. From the graph, what were the sales in 2004 and 2006?

**Q19.** Find the time taken by a body to cover 30 m.



**Q20.** The line graph given shows the yearly sales figure for a manufacturing company. From the graph, what were the sales in 2003 and 2005?

