SUBJECT:- MATHEMATICS

CLASS-VIII

Week : 11 January 2021 to 16 January 2021

CHAPTER-14 : DATA HANDLING (part-1)

Sub-Topics:

- Data
- Range
- Frequency Distribution Table
- Arithmetic Mean
- Grouped Frequency Distribution Table

Learning Outcomes:

Each student will be able to:

- arrange data in ascending or descending order
- construct frequency distribution table
- calculate arithmetic mean of the given data
- apply the knowledge gained in real life
- form grouped frequency distribution table

Teaching Aids Used:

Presentation of E-lesson, YouTube videos by screen sharing, white board and marker using laptop/mobile

GUIDELINES:

Dear students,

Kindly read the content given below and view the links shared for better understanding.

Solve the given questions in math notebook.

LESSON DEVELOPMENT

WHAT IS DATA?

- The information that is collected in relevance to a particular field in the form of numerical figures is called **data**

Link: https://www.youtube.com/watch?v=9mBT7jBdsFc&list=PLCzaIJYXP5YeK5hfDqICLw1XjWbiCo0Eg&index=18

RAW DATA

Data obtained from the source is called **raw data**. It is in original form without being tempered.

Let us consider the example of marks: 45, 46 , 49 , 31 , 32 , 25 , 19 , 25 , 37 , 38 obtained by 10 students in a test (Out of 50)

Each numerical figure of entry in the data is called **observation**

The above numerical figures are related to the marks obtained by 10 students. This is raw data. So, each entry here is an observation

The first thing we can do to this is to arrange it either in ascending or in descending order. This is known as **array**

Thus, we arrange the above data as follows:

19, 25 , 25 , 31 , 32 , 37 , 38 , 45 , 46 , 49

The number of times particular observation occurs is called **frequency** of the observation. Thus the frequency of 25 in above data is 2.

RANGE

The difference between the highest and lowest observation in the given set of data is called **range** of the data

Hence, the range of the above data = 49 – 19 = **30**

Link: https://www.youtube.com/watch?v=JmkL6HdAr0Y&list=PLCzaIJYXP5YeK5hfDqICLw1XjWbiCo0Eg&index=13

FREQUENCY DISTRIBUTION TABLE

Presenting data in the form of a table with the frequency of the observation is called **tabulation** of the data. The table so formed consisting of arranged data into frequency of each entry is called **frequency distribution table**

MARKS OF STUDENTS	TALLY BARS	NUMBER OF STUDENTS (FREQUENCY)	
19			1	
25				2	
31			1	
32			1	
37			1	
38			1	
45			1	
46			1	
49			1	
	TOTAL FREQUENCIES	10	

ARITHMETIC MEAN OF RAW/UNGROUPED DATA

The mean of the ungrouped or raw data is found by adding all the entries of the data and dividing their sum by the number of observations.

METHOD-I

The mean is denoted by $\bar{x} = \dfrac{Sum\ of\ all\ the\ observations}{Total\ number\ of\ observations}$

19, 25 , 25 , 31 , 32 , 37 , 38 , 45 , 46 , 49

Mean of the above data is,

$$\bar{x} = \frac{Sum\ of\ all\ the\ observations}{Total\ number\ of\ observations} = \frac{347}{10} = \mathbf{34.7}$$

METHOD-II

Find the mean of the data : **19, 25 , 25 , 31 , 32 , 37 , 38 , 45 , 46 , 49**

By constructing the frequency distribution table we follow the following rules:

1. First of all we construct a frequency distribution table as shown below
2. Then, multiply by corresponding frequency in step
3. Find the sum of all obtained product
4. The sum of obtained product is divided by the sum of frequency.
5. This quotient is the required arithmetic mean

MARKS OBTAINED (x)	TALLY MARKS	FREQUENCY (f)	$f \times x$
19	|	1	19
25	||	2	50
31	|	1	31
32	|	1	32
37	|	1	37
38	|	1	38
45	|	1	45
46	|	1	46
49	|	1	49
	TOTAL	10	347

$$Arithmetic\ Mean = \frac{\Sigma fx}{\Sigma f} = \frac{347}{10} = \mathbf{34.7}$$

Thus, the required arithmetic mean = 34.7

EXAMPLE:

The weights(in kg) of 52 students of a class are as follows:

Weight in kg (x)	50	52	54	56	60
Frequency (f)	8	10	15	12	7

Find the arithmetic mean of the weight of the students.

SOLUTION:

First we will construct the table

Weight in kg (x)	Frequency (f)	$f \times x$
50	8	400

52	10	520
54	15	810
56	12	672
60	7	420
TOTAL	$\sum f = 52$	$\sum fx = 2822$

$$Arithmetic\ Mean = \frac{\sum fx}{\sum f} = \frac{2822}{52} = 54.27\ kg$$

Thus, the arithmetic mean of weight of students = **54.27 kg**

GROUPED FREQUENCY DISTRIBUTION TABLE

If the number of different observations is quite large, it is desirable to condense the given data in several groups and obtain a frequency distribution of the number of observations falling in each group. When the data is written in this form, the data are said to be grouped and the distribution obtained is called a **grouped frequency distribution**.
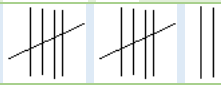
Link:

https://www.youtube.com/watch?v=nSN70jRh4vk&list=PLCzaIJYXP5YeK5hfDqICLw1Xj
WbiCo0Eq&index=11

EXAMPLE: The following marks are obtained by 50 students in Mathematics:

3, 20, 13, 1 , 21 , 13, 3 , 2, 3, 16, 13, 5, 24, 15, 7, 10,16, 18, 18, 7, 17, 21, 15, 5, 23, 2, 12, 20, 2, 10, 16, 23, 19, 18, 12, 6, 9, 7, 3, 5, 16, 8, 4, 3, 2, 6, 7, 18, 22, 22

Construct a grouped frequency distribution table with class intervals of equal width.

NOTE: No observation could belong simultaneously to two classes. To avoid this difficulty, we adopt the convention that the common observation belong to higher class.

CLASS INTERVALS	TALLY MARKS	FREQUENCY
0-5	~~||||~~ ~~||||~~		11
5-10	~~||||~~ ~~||||~~		11
10-15	~~||||~~ ||	7
15-20	~~||||~~ ~~||||~~ ||	12
20-25	~~||||~~ ||||	9

	TOTAL	50

Consider the above table in this, 5 belongs to both the classes 0-5 and 5-10. Thus, 5 belong to the higher class i.e. 5-10. Similarly 10 belongs to the higher class 10-15 and 20 belongs to the higher class 20-25.

Link:

https://www.youtube.com/watch?v=Hzu430YrZ4M&list=PLCzaIJYXP5YeK5hfDqlCLw1XjWbiCo0Eq&index=10

0-5 , 5-10, 10-15, 15-20 and 20-25 are called the **class intervals**

Consider the class interval 0-5,

Here 0 is called the **lower class limit** and 5 is called the **upper class limit** of this particular class interval 0-5.

The difference between upper and lower class limit of an interval is called the **width** or **size** of the interval.

In the above distribution width of each class interval is **5**

The mid – point of a class is called its **class mark**.

$$Class\ Mark = \frac{Lower\ class\ limit + Upper\ class\ limit}{2}$$

Class mark of class interval 0-5 =

$$\frac{Lower\ class\ limit + Upper\ class\ limit}{2}$$

$$= \frac{0+5}{2} = \frac{5}{2} = 2.5$$

Link:

https://www.youtube.com/watch?v=Ia0i1WhPfnI&list=PLCzaIJYXP5YeK5hfDqlCLw1XjWbiCo0Eq&index=9

EXAMPLE:

The frequency distribution of weight(in kg) of 50 persons of locality are as follows:

WEIGHT(in kg)	FREQUENCY
40-45	6
45-50	16
50-55	15
55-60	8
60-65	5

(a) What is the upper class limit of fifth class interval?

The fifth class interval is 60-65. The upper limit of class interval 60-65 is **65**

(b) Find the class mark of second class.

The second class interval is 45-50.

$$Class\ Mark = \frac{Lower\ class\ limit + Upper\ class\ limit}{2} = \frac{45+50}{2} = \mathbf{47.5}$$

(c) What is the class size of each class interval?

Class size = Upper class limit – Lower class limit = 45 – 50 = **5**

(d) Which class interval has the highest frequency?

Highest frequency is 16 and the class interval corresponding to 16 is **45 – 50**

ASSIGNMENT:

Complete the following questions from Exercise 14 of your book(page 256)

Q1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13

EXTRA QUESTIONS:

Q1) A group of students were asked to say which animal they would like most to have as a pet. The results are given below:

dog, cat, cat, fish, cat, rabbit, dog, cat, rabbit, dog, cat, dog, dog, dog, cat, cow, fish, rabbit, dog, cat, dog, cat, cat, dog, rabbit, cat, fish, dog

Make a frequency distribution table for the same.

Q2) A group of students was asked for their favorite subject. The results were as listed below:

Art, Mathematics, Science, English, Mathematics, Art, English, Mathematics, English, Art, Science, Art, Science, Science, Mathematics, Art, English, Art, Science, Mathematics, Science, Art

Which is the most liked subject and the one least liked?

Q3) The shoppers who come to a departmental store are marked as: man (M), woman (W), boy (B) or girl (G). The following list gives the shoppers who came during the first hour in the morning:

W W W G B W W M G G M M W W W W G B M W B G G M W W M M W W W M W B W G M W W W W G W M M W W M W G W M G W M M B G G W

Make a frequency distribution table using tally marks.

Q4) The weekly wages (in `) of 30 workers in a factory are.

830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840

Using tally marks make a frequency table with intervals as 800–810, 810–820 and so on.

Q5)Consider the following marks (out of 50) obtained in Mathematics by 60 students of Class VIII:

21, 10, 30, 22, 33, 5, 37, 12, 25, 42, 15, 39, 26, 32, 18, 27, 28, 19, 29, 35, 31, 24, 36, 18, 20, 38, 22, 44, 16, 24, 10, 27, 39, 28, 49, 29, 32, 23, 31, 21, 34, 22, 23, 36, 24, 36, 33, 47, 48, 50, 39, 20, 7, 16, 36, 45, 47, 30, 22, 17.

Make a grouped frequency distribution table

Q6) Construct a frequency distribution table for the data on weights (in kg) of 20 students of a class using intervals 30-35, 35-40 and so on.

 40, 38, 33, 48, 60, 53, 31, 46, 34, 36, 49, 41, 55, 49, 65, 42, 44, 47, 38, 39

Q7) Study the following frequency distribution table and answer the questions given below.

Frequency Distribution of Daily Income of 550 workers of a factory

CLASS INTERVAL (Daily income in Rs)	FREQUENCY (Number of workers)
100-125	45
125-150	25
150-175	55
175-200	125
200-225	140
225-250	55
250-275	35
275-300	50
300-325	20
TOTAL	550

(i)   What is the size of the class intervals?
(ii)   Which class has the highest frequency?
(iii)   Which class has the lowest frequency?
(iv)   What is the upper limit of the class interval 250-275?
(v)   Which two classes have the same frequency?

Q8) 40 students get the following marks (out of 100) in an examination of mathematics:

Construct a frequency distribution table and calculate the arithmetic mean for the above obtained marks.

Q9) The following frequency distribution table shows the contribution to Prime Minister Relief Fund by 25 persons:

Amount (in Rs)	100	200	300	400	500
Number of Persons	6	4	8	5	2

Find the mean contribution.

Q10) The arithmetic mean of the following frequency distribution is 50, find the missing frequency **p**:

x	10	30	50	70	90
f	17	p	32	24	19

Week : 18 January 2021 to 23 January 2021

CHAPTER-14 : DATA HANDLING (part-2)

Sub-Topics:

- Grouped Frequency Distribution table
- Histogram

Learning Outcomes:

Each student will be able to:

- recall grouped frequency distribution table
- form grouped frequency distribution table
- define histogram
- differentiate between bar graph and histogram
- represent data in the form of histogram
- apply the knowledge gained in real life situations

Teaching Aids Used:

Presentation of E-lesson, YouTube videos by screen sharing, white board and marker using laptop/mobile

LESSON DEVELOPMENT

GROUPED FREQUENCY DISTRIBUTION TABLE

If the number of different observations is quite large, it is desirable to condense the given data in several groups and obtain a frequency distribution of the number of observations falling in each group. When the data is written in this form, the data are said to be grouped and the distribution obtained is called a **grouped frequency distribution**.
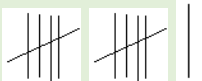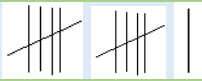
Link:

https://www.youtube.com/watch?v=nSN70jRh4vk&list=PLCzaIJYXP5YeK5hfDqICLw1Xj WbiCo0Eq&index=11

EXAMPLE: The following marks are obtained by 50 students in Mathematics:

3, 20, 13, 1 , 21 , 13, 3 , 2, 3, 16, 13, 5, 24, 15, 7, 10,16, 18, 18, 7, 17, 21, 15, 5, 23, 2, 12, 20, 2, 10, 16, 23, 19, 18, 12, 6, 9, 7, 3, 5, 16, 8, 4, 3, 2, 6, 7, 18, 22, 22

Construct a grouped frequency distribution table with class intervals of equal width.

NOTE: No observation could belong simultaneously to two classes. To avoid this difficulty, we adopt the convention that the common observation belong to higher class.

CLASS INTERVALS	TALLY MARKS	FREQUENCY
0-5	卌 卌 I	11
5-10	卌 卌 I	11
10-15	卌 II	7
15-20	卌 卌 II	12
20-25	卌 IIII	9
	TOTAL	50

Consider the above table in this, 5 belongs to both the classes 0-5 and 5-10. Thus, 5 belong to the higher class i.e. 5-10. Similarly 10 belongs to the higher class 10-15 and 20 belongs to the higher class 20-25.

Link:

0-5 , 5-10, 10-15, 15-20 and 20-25 are called the **class intervals**

Consider the class interval 0-5,

Here 0 is called the **lower class limit** and 5 is called the **upper class limit** of this particular class interval 0-5.

The difference between upper and lower class limit of an interval is called the **width** or **size** of the interval.

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$$Class\ Mark = \frac{Lower\ class\ limit + Upper\ class\ limit}{2}$$

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Link:

EXAMPLE:

The frequency distribution of weight(in kg) of 50 persons of locality are as follows:

WEIGHT(in kg)	FREQUENCY
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45-50	16
50-55	15
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60-65	5

(e) What is the upper class limit of fifth class interval?

The fifth class interval is 60-65. The upper limit of class interval 60-65 is **65**

(f) Find the class mark of second class.

The second class interval is 45-50.

$$Class\ Mark = \frac{Lower\ class\ limit + Upper\ class\ limit}{2} = \frac{45 + 50}{2} = \textbf{47.5}$$

(g) What is the class size of each class interval?

Class size = Upper class limit – Lower class limit = 45 – 50 = **5**

(h) Which class interval has the highest frequency?

Highest frequency is 16 and the class interval corresponding to 16 is **45 – 50**

HISTOGRAM

Grouped data can be presented using histogram. Histogram is a type of bar diagram, where the class intervals are shown on the horizontal axis and the heights of the bars show the frequency of the class interval. Also, there is no gap between the bars as there is no gap between the class intervals.
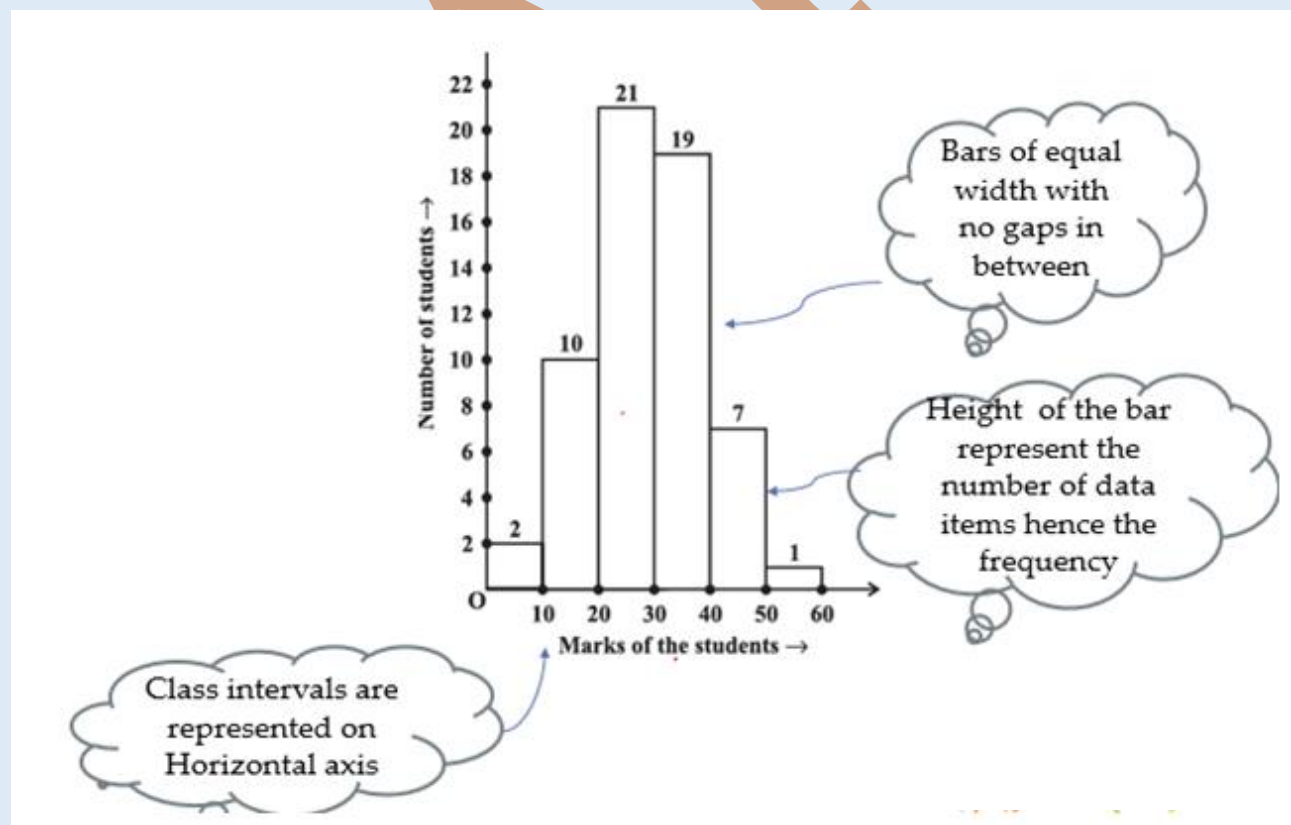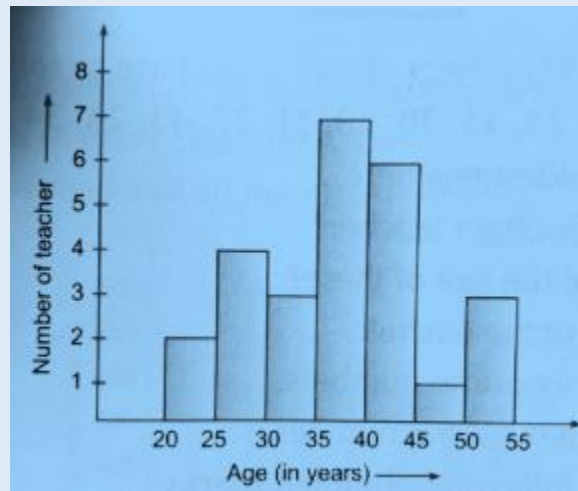
Link:

EXAMPLE:

Read the following histogram and answer the questions given below:

Histogram for the age (in years) of 26 teachers of a school

(a) What information is depicted by the histogram?

This histogram shows the **age of 26 teachers** of a school

(b) What is the number of teachers in the oldest age group in the school?

The number of teachers in the oldest age group is **3**

(c) What is the number of teachers in the youngest group in the school?

The number of teachers in the youngest age group is **2**

(d) In which age group, the number of teachers is the least?

The least number of teachers is 1 which belongs to the age group **45 – 50**

(e) In which age group, the number of teachers is the maximum?

The maximum number of teachers is 7 which belongs to the age group **35 – 40**

(f) What are the class size of each class interval?

The class size of each class interval is **5**

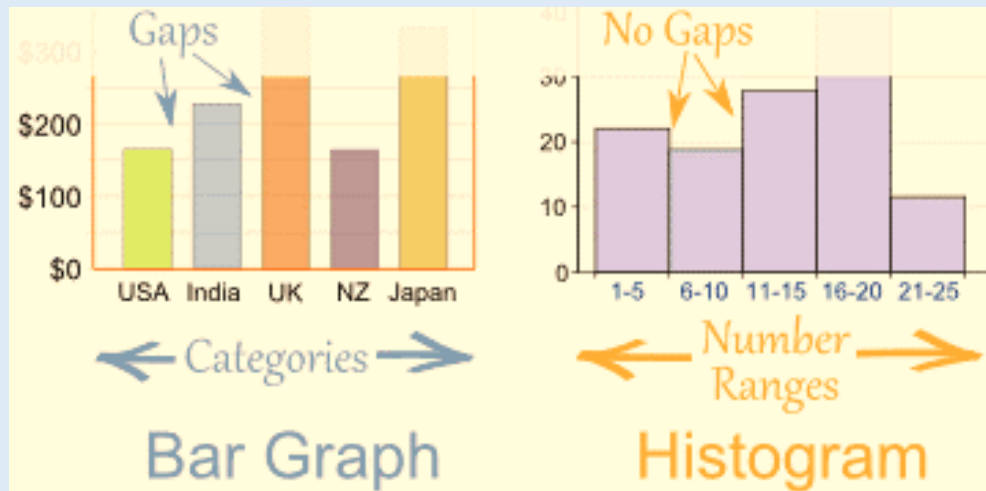**(g) What are the class marks of all the class intervals?**

$$Class\ Mark = \frac{Lower\ class\ limit + Upper\ class\ limit}{2}$$

The class marks of all the class intervals are **22.5, 27.5, 32.5, 37.5, 42.5**, 47.5, and **52.5**

(h) How many teachers are below 30 years in age?

Number of teachers below the age of 30 years = 2 + 4 = **6**

DIFFERENCE BETWEEN BAR GRAPH AND HISTOGRAM

Link:

https://www.youtube.com/watch?v=-malQ94xNes

STEPS TO DRAW A HISTOGRAM

1. We draw two perpendicular axis and choose a suitable scale for each axis.
2. We mark class intervals of the grouped data on the horizontal axis and the respective class frequencies on the vertical axis.
3. For each class a rectangle is constructed with class interval as the base and height determined from the class frequency so that areas of rectangles are proportional to the frequencies of their classes.

Link:

https://www.youtube.com/watch?v=7HI-wuOwVGU

ASSIGNMENT:

Complete the following questions from Exercise 14 of your book(page 256)

Q8, 9 and MCQ on Page 258

EXTRA QUESTIONS:

Q1) The weekly wages (in `) of 30 workers in a factory are.

830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840

Using tally marks make a frequency table with intervals as 800–810, 810–820 and so on.

Q2)Consider the following marks (out of 50) obtained in Mathematics by 60 students of Class VIII:

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Make a grouped frequency distribution table

Q3) Construct a frequency distribution table for the data on weights (in kg) of 20 students of a class using intervals 30-35, 35-40 and so on.

 40, 38, 33, 48, 60, 53, 31, 46, 34, 36, 49, 41, 55, 49, 65, 42, 44, 47, 38, 39

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| CLASS INTERVAL (Daily income in Rs)	FREQUENCY (Number of workers)
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150-175	55
175-200	125
200-225	140
225-250	55
250-275	35
275-300	50
300-325	20
TOTAL	550

(vi)   What is the size of the class intervals?
(vii)   Which class has the highest frequency?
(viii)   Which class has the lowest frequency?
(ix)   What is the upper limit of the class interval 250-275?
(x)   Which two classes have the same frequency?

Q5) The following histogram shows the number of literate females in the age group of 10 to 40 years in a town:
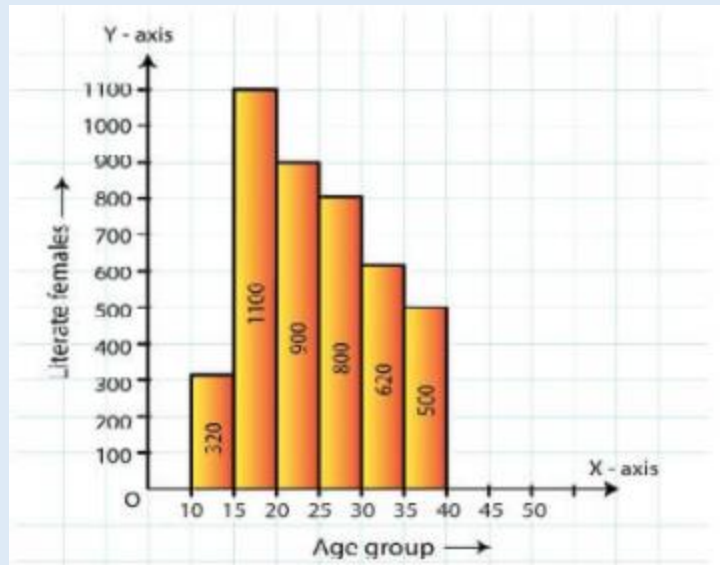
(i) Write the age group in which the number of literate female is the highest.

(ii) What is the class width?

(iii) What is the lowest frequency?

(iv) What are the class marks of the classes?

(v) In which age group literate females are the least?

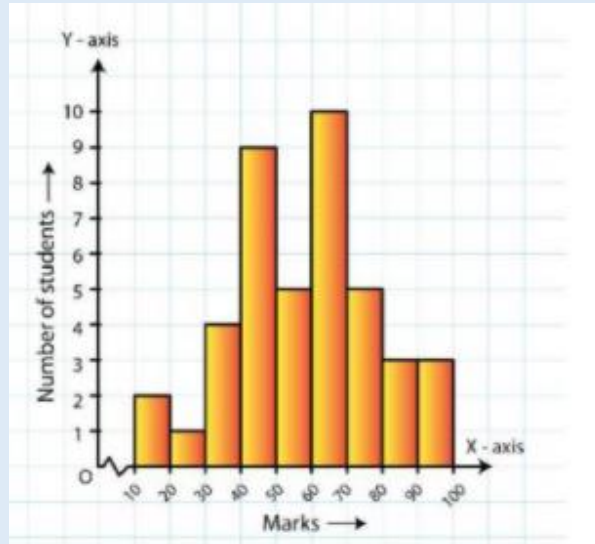Q6) The following histogram shows the monthly wages (in Rs) of workers in a factory:
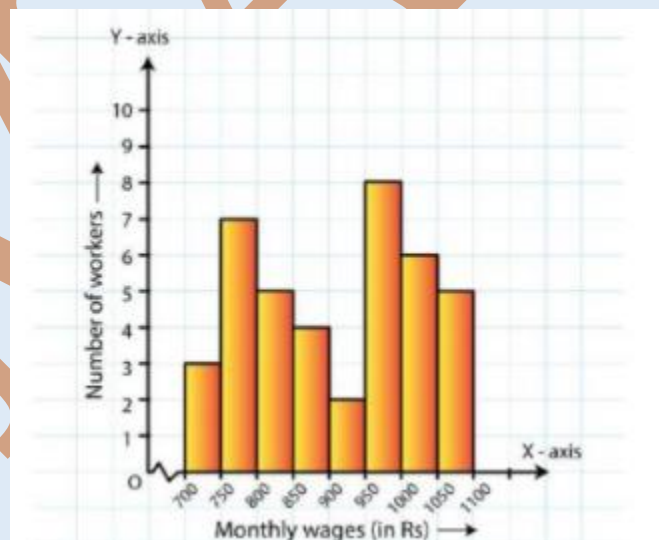
(a) In which wage-group the largest numbers of workers are being kept? What is their number?

(b) What wages are the least number of workers getting? What is the number of such workers?

(c) What is the total number of workers?

(d) What is the factory size?

Q7) Below is the histogram depicting marks obtained by 43 students of a class:

    (a) Write the number of students getting the highest marks.
    (b) What is the class size?

Q8) The following histogram shows the frequency distribution of the ages of 22 teachers in a school:
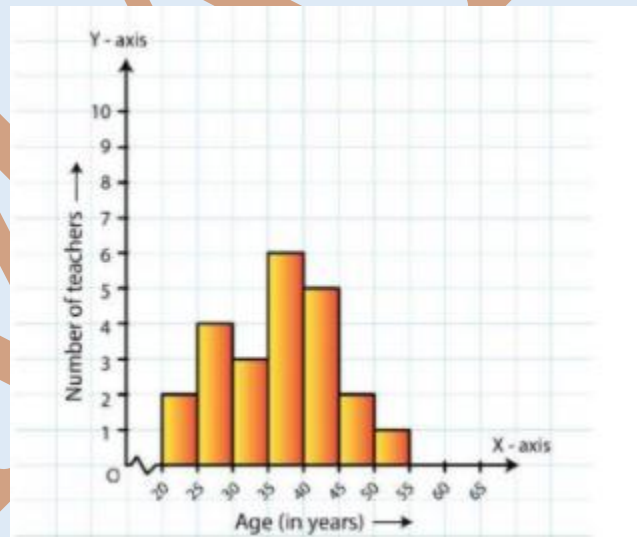
    (a) What is the number of eldest and youngest teachers in the school?
    (b) Which age group teachers are more in the school and which least?
    (c) What is the class size of the classes?
    (d) What are the class marks of the classes?

Q9) The weekly wages (in Rs) of 30 workers in a factory are given:

830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840

Make a frequency distribution table with intervals as 800 – 810, 810 – 820 and so on, using tally marks.

Q10) Answer the following questions on the basis of the following histogram:
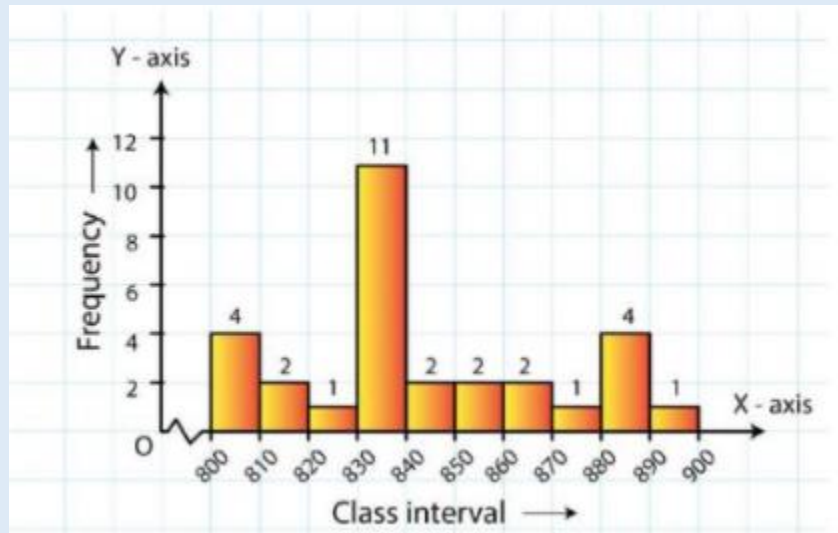
(a) Which group has the maximum number of workers?
(b) How many workers earn Rs 850 and more?
(c) How many workers earn less than Rs 850?

Week : 25 January 2021 to 30 January 2021

CHAPTER-15 : INTRODUCTION TO GRAPHS (part-1)

Sub-Topics:

- Cartesian plane
- Locating points on Cartesian plane
- Plotting points on Cartesian plane

Learning Outcomes:

Each student will be able to:

- Explain Cartesian plane
- Locate points on Cartesian plane
- Plot points on Cartesian plane

Teaching Aids Used:

Presentation of E-lesson, YouTube videos by screen sharing, white board and marker using laptop/mobile

Dear students,

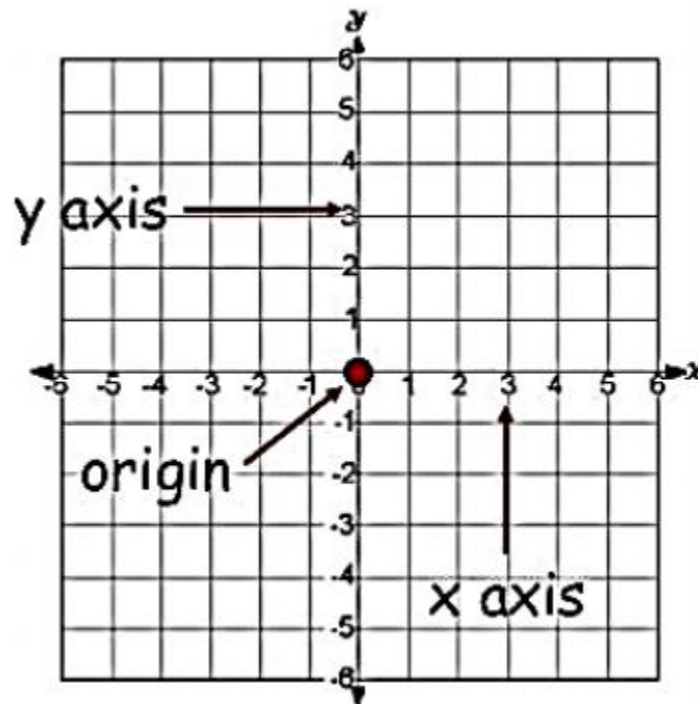**Kindly read the content given below and view the links shared for better understanding.**

Solve the given questions in math notebook.

DAY-1

LESSON DEVELOPMENT

Cartesian System

If we take two number lines, one horizontal and one vertical, and then combine them in such a way that they intersect each other at their zeroes, and then they form a **Cartesian Plane.**


- The horizontal line is known as **the x-axis** and the vertical line is known as the **y-axis**.
- The point where these two lines intersects each other is called the **origin**. It is represented as 'O'.
- OX and OY are the positive directions as the positive numbers lie in the right and upward direction.

- Similarly, the left and the downward directions are the negative directions as all the negative numbers lie there.

Quadrants of the Cartesian Plane

The Cartesian plane is dividing into four quadrants named as **Quadrant I, II, III, and IV** anticlockwise from OX.

Link:

https://www.youtube.com/watch?v=LqrHvGAaNDI
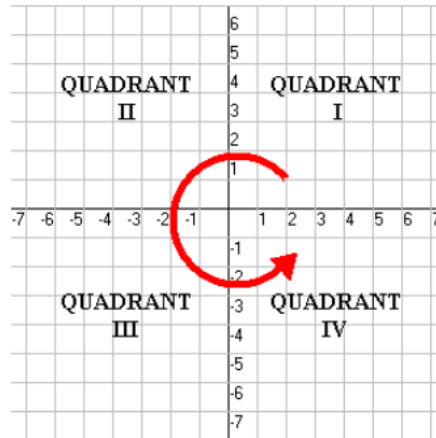
ASSIGNMENT:

Complete Q1, 6, 7 from Exercise 14 of your book(page 256)

**DAY-2**

LESSON DEVELOPMENT

Coordinates of a Point

To write the coordinates of a point we need to follow these rules-

- The **x - coordinate** of a point is marked by drawing perpendicular from the y-axis measured a length of the x-axis .It is also called the **Abscissa.**
- The **y - coordinate** of a point is marked by drawing a perpendicular from the x-axis measured a length of the y-axis .It is also called the **Ordinate.**
- While writing the coordinates of a point in the coordinate plane, the x - coordinate comes first, and then the y - coordinate. We write the coordinates in brackets.
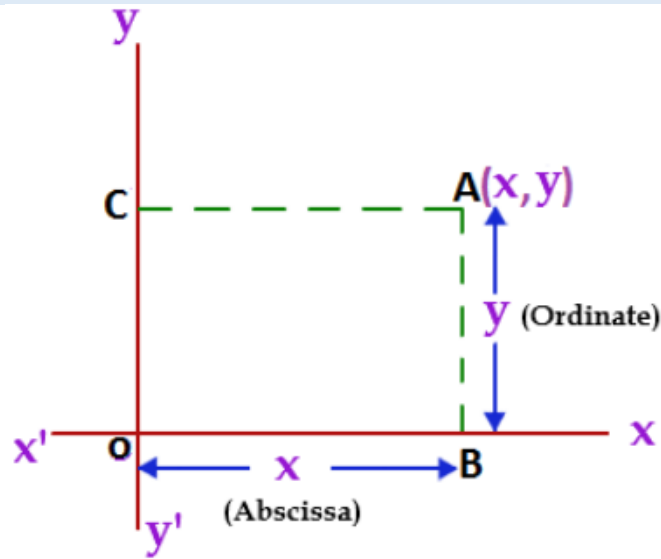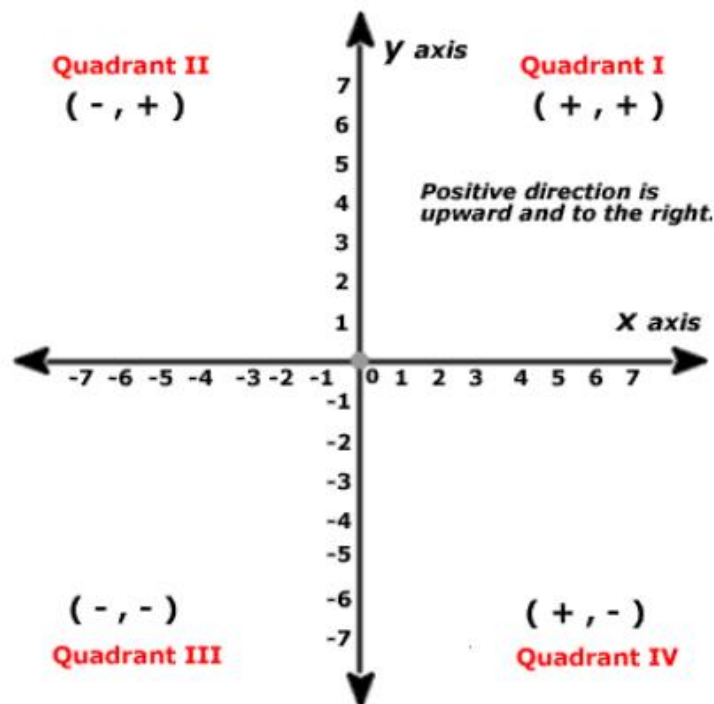
In the above figure, OB = CA = x coordinate (Abscissa), and CO = AB = y coordinate (Ordinate).

We write the coordinate as (x, y).

Remark: As the origin O has zero distance from the x-axis and the y-axis so its abscissa and ordinate are zero. Hence the **coordinate of the origin is (0, 0)**.

The relationship between the signs of the coordinates of a point and the quadrant of a point in which it lies.

Quadrant	Coordinate	Sign in the quadrant
I	(+, +)	1st quadrant is enclosed by the positive x-axis and the positive y-axis.
II	(-, +)	2nd quadrant is enclosed by the negative x-axis and the positive y-axis.
III	(-, -)	3rd quadrant is enclosed by the negative x-axis and the negative y-axis.
IV	(+, -)	4th quadrant is enclosed by the positive x-axis and the negative y-axis

Link:

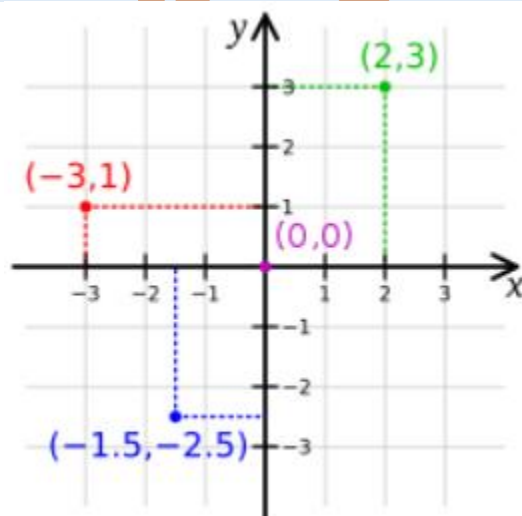https://www.youtube.com/watch?v=6qbKI5qDj7M

ASSIGNMENT:

Complete Q3, 4, 5 from Exercise 14 of your book(page 256)

DAY-3

LESSON DEVELOPMENT

Plotting a Point in the Plane if its Coordinates are Given

Steps to plot the point (2, 3) on the Cartesian plane -

- First of all, we need to draw the Cartesian plane by drawing the coordinate axes with 1 unit = 1 cm.

- To mark the x coordinates, starting from 0 moves towards the positive x-axis and count to 2.
- To mark the y coordinate, starting from 2 moves upwards in the positive direction and count to 3.
- Now this point is the coordinate (2, 3)

Likewise, we can plot all the other points, like (-3, 1) and (-1.5,-2.5) in the right site figure.
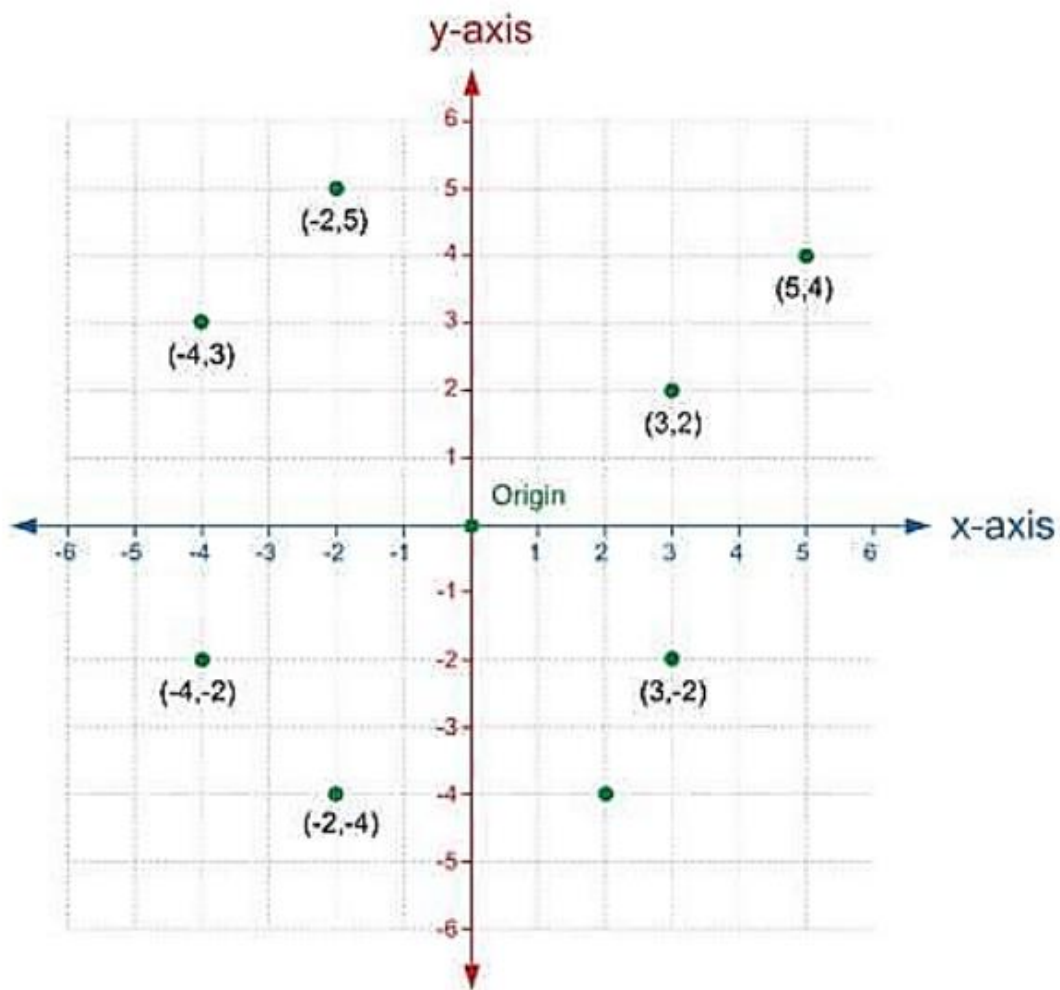
Is the coordinates (x, y) = (y, x)?

Let x = (-4) and y = (-2)

So (x, y) = (- 4, − 2)

(y, x) = (- 2, - 4)

Let's mark these coordinates on the Cartesian plane.

You can see that the positions of both the points are different in the Cartesian plane. So,

If x ≠ y, then (x, y) ≠ (y, x), and (x, y) = (y, x), if x = y.
Example:

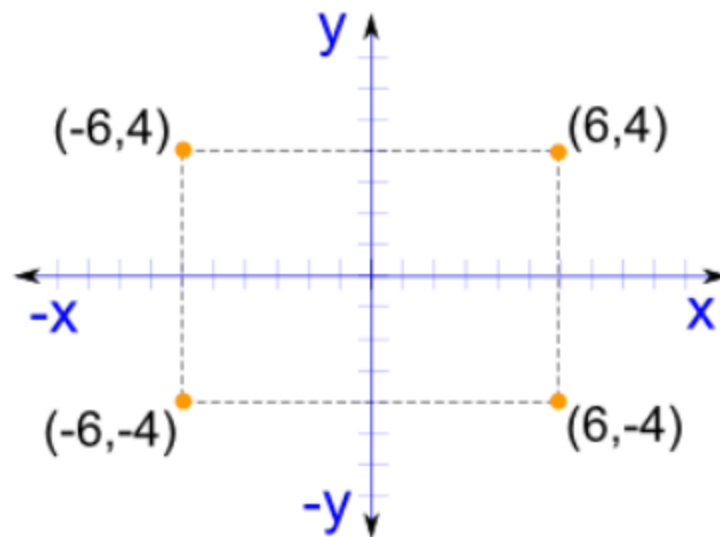Plot the points (6, 4), (- 6,- 4), (- 6, 4) and (6,- 4) on the Cartesian plane.

Solution:

As you can see in (6, 4) both the numbers are positive so it will come in the first quadrant.

For x coordinate, we will move towards the right and count to 6.

Then from that point go upward and count to 4.

Mark that point as the coordinate (6, 4).

 Similarly, we can plot all the other three points.

Link:

https://www.youtube.com/watch?v=lQFNDoxd5eU

   ASSIGNMENT:

   Complete Q2 from Exercise 15.1 of your book(page 267)

EXTRA QUESTIONS

Q1) Fill in the blanks:

(i) The co-ordinate of any point on y – axis is of the form (___, ___).

(ii) The point of intersection of co-ordinate axis is _____.

(iii) Co-ordinate axes divide the plane into 4 parts called _____.

(iv) The plane is called the _____ plane.

(v) The two perpendicular lines in the Cartesian plane are called _____.

(vi) Co-ordinates of the origin are _____.

(vii) The distance of a point from y-axis is called _____.

(viii) Co-ordinates of a point on the x-axis are of the form _____.

(ix) The point where the two perpendicular lines in a Cartesian plane intersect is _____.

(x) Abscissa of a point on y-axis is _____.

(xi) The point (-5, 3) lies in the _____ quadrant.

(xii) Point (0, 2) lies or _____ axis.

(xiii) In the third quadrant abscissa is_____.

(xiv) In the third quadrant, the co-ordinates of a point are of the form (___, ___).

(xv) If y co-ordinates is -3 and x co-ordinate is 5, then the ordered pair is (__, __).

(xvi) The _____ line is called the x-axis.

(xvii) In an ordered pair (1, 7) _____ is 1 and _____ is 7.

(xviii) The co-ordinates (x, y) are called the _____ pair.

(xix) Both the co-ordinates are _____ in the first quadrant.

(xx) Ordinate is also known as _____.

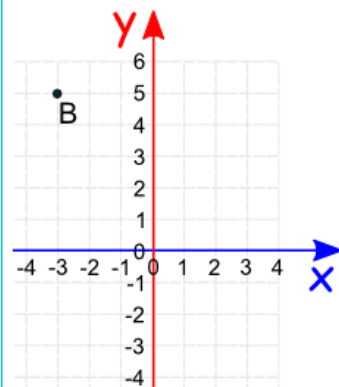## Q2)
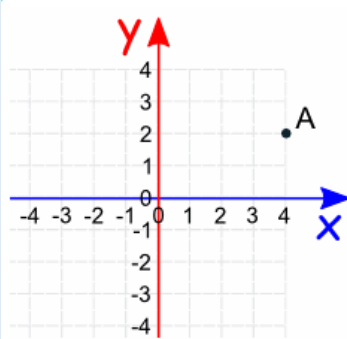
What are the Cartesian coordinates of the point A?

A (2,4)	B (4,2)
C (-4,2)	D (4,-2)

Q3)

What are the Cartesian coordinates of the point B?
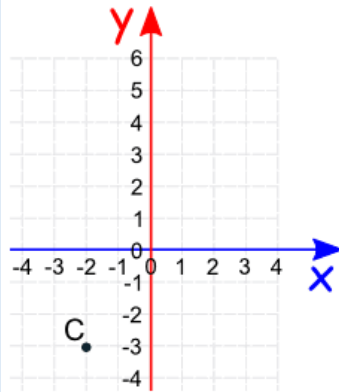
A (5,-3)	B (3,-5)
C (-5,3)	D (-3,5)

Q4)

What are the Cartesian coordinates of the point C?

| A (-2,-3) | B (-3,-2) |
| C (-2,3) | D (2,-3) |

Q5)

In which quadrant do you find the point (3, -2)?

| A First quadrant | B Second quadrant |
| C Third quadrant | D Fourth quadrant |

Q6)

In which quadrant do you find the point (-3, 4)?

| A First quadrant | B Second quadrant |
| C Third quadrant | D Fourth quadrant |

Q7)

A = (2, 5), B = (2, -1), C = (-6, -1) and D = (-6, 5)

A is joined to B, B to C, C to D and D to A with straight lines.

What shape is ABCD?

A A square	B A rectangle
C A kite	D A rhombus

Q8)

A = (-3, 3), B = (5, 3), C = (2, -2) and D = (-6, -2)

A is joined to B, B to C, C to D and D to A with straight lines.
What shape is ABCD?

A A parallelogram	B A rectangle
C A rhombus	D A kite

Q9)

A = (-3, 1), B = (2, 1), C = (6, -4) and D = (-7, -4)

A is joined to B, B to C, C to D and D to A with straight lines.
What shape is ABCD?

A A rectangle	B A parallelogram
C A rhombus	D A trapezoid (trapezium).