

CLASS VII

SUBJECT : MATHEMATICS

CHAPTER : 3 (DATA HANDLING)

HOT'S QUESTIONS AND CASE STUDIES

CASE STUDY 1

Temperature of some countries has shown in the table given below:

COUNTRY	2020		2021	
	MAXIMUM	MINIMUM	MAXIMUM	MINIMUM
Maldives	30°C	17°C	31°C	19°C
Sudan	35°C	24°C	36°C	28°C
Yemen	32°C	23°C	30°C	23°C
Canada	-8°C	-13°C	-7°C	-11°C
Russia	-6°C	-10°C	-6°C	-11°C
Switzerland	8°C	-2°C	8°C	-2°C
Peru	24°C	10°C	23°C	15°C
Algeria	17°C	5°C	13°C	-1°C

Follow the above table and answer the following questions:

Q(1). What is the mode temperature of the given data?

- Q(2). What is the range of temperature of Algeria considering both the years?
- Q(3). Which country has the same maximum and minimum temperature in both the years?
- Q(4). Which country has the largest difference in the minimum and maximum temperature in the year 2020?
- Q(5). Find the mean of maximum temperature of 8 countries in 2021.
- Q(6). Find the product of reciprocal of highest and lowest temperature of the given data.
- Q(7). Find the mean of minimum temperature of Canada, Peru and Sudan in 2020.
- Q(8). Suppose average temperature of Maldives is 5 more than 2times of Peru's average temperature. Set up an equation of Maldives temperature considering Peru's average temperature as t .
- Q(9). Find such pair/pairs of temperature of the above table which are additive inverse to each other.
- Q(10). How much temperature of Canada should increase from minimum temperature of Canada in 2021 so that it will equal to the minimum temperature of Sudan in the same year?

CASE STUDY 2

If you roll a die

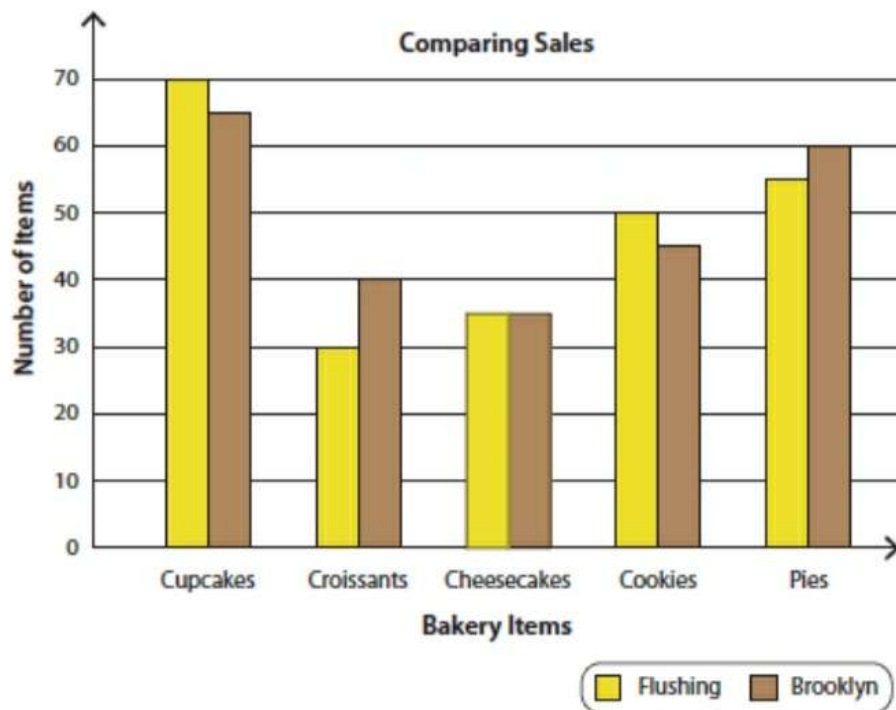
- Q(1). What is the probability of getting 4?
- Q(2). What is the probability of getting a natural number?
- Q(3). What is the probability of getting a number which is a multiple of 3?
- Q(4). What is the probability of getting 0?
- Q(5). What is the probability of getting any odd number?
- Q(6). What is the probability of getting a number less than three?
- Q(7). What is the probability of getting any prime number?
- Q(8). Before rolling a die, if you think "in first chance it will come six only."
- Which type of event is it?
- Q(9). When you roll a die you will get a number "7". Which type of event is it?

Q(10). When you roll a die the outcomes will be “any number from 1 to 6”.

Which type of event is it?

CASE STUDY 3

Mrs. Saunders owns bakery stores in Flushing and Brooklyn. She compares the sales of both the stores and records the information in a bar graph. Use the bar graph and answer the questions.



Q(1). Find the range of number of Bakery items sold in Flushing.

Q(2). Find the difference of range of number of Bakery items sold in Brooklyn and Flushing.

Q(3). How many Pies were sold by both the stores?

Q(4). How many Cookies were sold by bakery store in Flushing?

Q(5). How many more Cupcakes were sold than Cheesecakes at the store in Brooklyn?

Q(6). What is difference of number of Cheesecakes and number of Croissants were sold in Flushing?

Q(7). Find the mean of number of Bakery items sold in Brooklyn.

Q(8). Find the median of number of Bakery items sold in Flushing.

Q(9). By considering the number of items sold from both the stores is it possible to find out the mode value from the above bar graph? Justify your answer.

Q(10). By observing the double bar graph considering each Bakery item like Cupcakes, Croissants etc. in both the stores what you are observing in each item write by your own words.

HOT'S QUESTIONS

Q(1). What is the formula of finding median for odd number of observations?

Q(2). What is the range of the given data : 26, -22, 14, -28, 22, -11, 15, 27, -29, 30, -12, 24, -12

Q(3). What is the mode of the given data : 3, -4, 6, -10, 16, -4, 15, 3, 6, -10, -8, 6, 16

Q(4). What is the mean of the given data : 16, -12, 24, -18, 12, -10, -15, 27, -29, 30, -12, 23

Q(5). How many representative values are there with which you have come across? Write one characteristics of it.

Q(6). If you toss two coins together what is the probability of getting two tails together?

Q(7). If you toss a coin what is the probability of getting neither head nor tail?

Q(8). When you roll a die, what is the probability getting 8?

Q(9). "The sun revolves around the earth." Which type of event is it?

Q(10). When you roll a die, what is the probability getting a number which is more than four?

Q(11). RCB will win the IPL trophy of 2021. Which type of event is it?

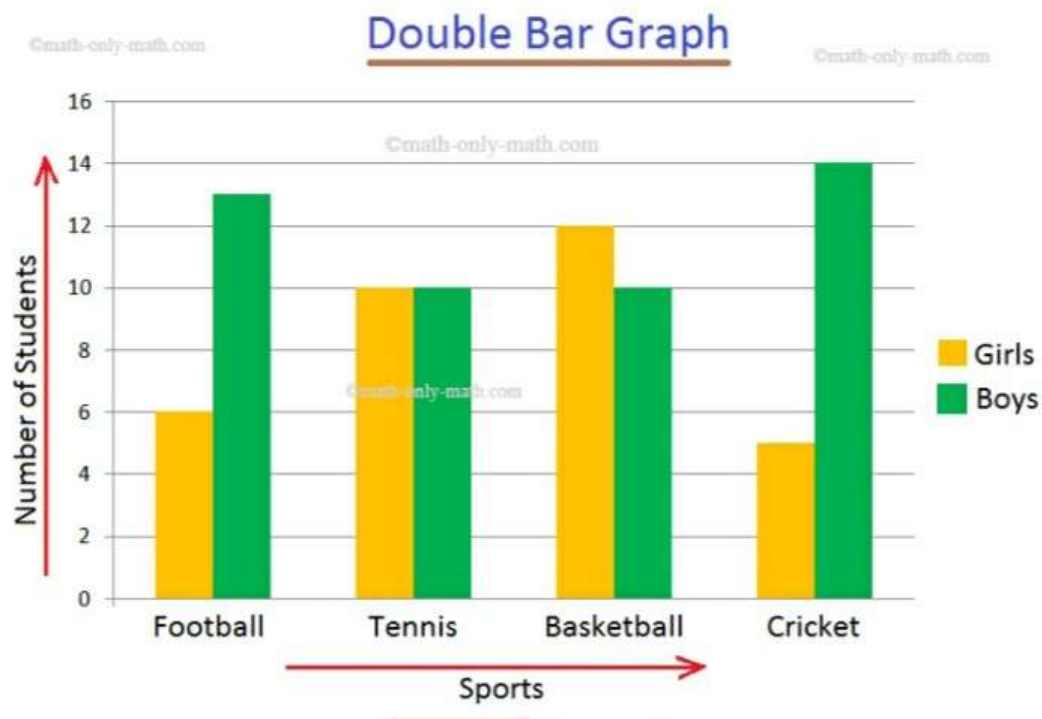
Q(13). Find the median of the given data: 25, 26, 34, 35, 27, 26, 34, 36, 28, 34, 28, 30, 32, 33, 25

Q(14). Mean should always be one of the observations of the given data. Justify your answer with examples.

Q(15). What are the necessities of using double bar graph? Explain with examples where you can apply the concept of double bar graph. Make two double bar graphs by your own which are related to your daily life.

Q(16). Give five examples of each of certain events, events that can happen but not certain and impossible events.

1. Observe the given graph and answer the questions below.



Q(17). Which sport is liked by 5 girls?

Q(18). How many students like Football?

Q(19). Which is the most preferred sport of the girls?

Q(20). Which sport is equally liked by both the boys and the girls?

Q(21). How many more boys like Cricket than Tennis?