

## CHAPTER 3

# DATA HANDLING

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### Points to Remember :

- ❑ Mean =  $\frac{\text{Sum of the observations}}{\text{Number of observations}}$ .
- ❑ Mode : The observation which occurs most frequently in a set of data is called Mode.
- ❑ Median : Median refers to the value which lies in the middle of the data (when arranged in increasing or decreasing order).
- ❑ Probability : The measure of the chance of something happening is called probability.
  - The probability of happening an event may lie between 0 and 1.
  - When an outcome is certain to happen, its probability is 1.
  - When an outcome is impossible, its probability is 0.

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### QUESTIONS

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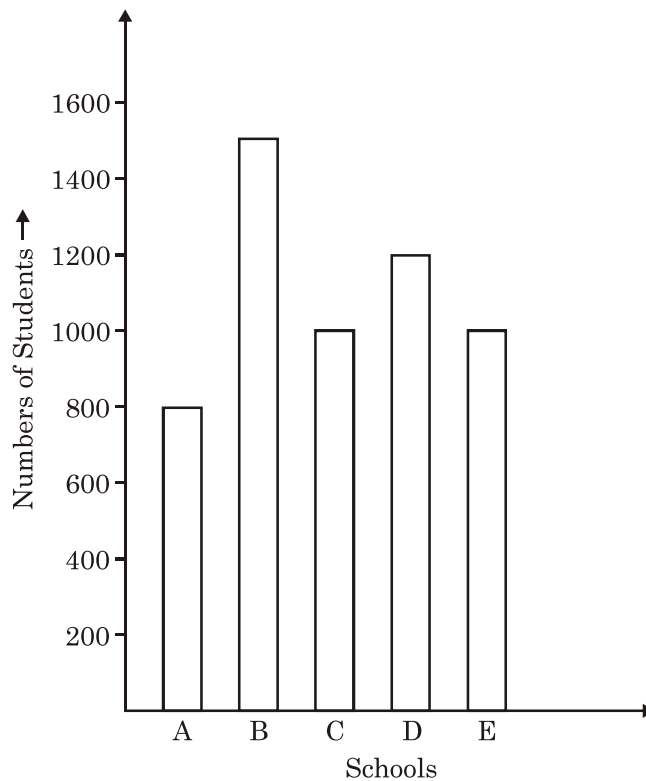
1. Find mean of the first seven whole numbers.
2. Find mean of the first six natural numbers.
3. Calculate the mean of 2, 4, 6, 8, 10, 12, 14, 16.
4. Calculate the mean of first five multiple of 10.
5. The average marks scored by a student in five subjects is 72. Find his total marks.
6. The marks scored by a student in five subjects are 80, 75, 66, 51 and 91. How much should he score in the 6th subject to make his average score 75?
7. Find mean of the first five even numbers.
8. Find mean of the first six odd numbers.
9. Calculate the mean : 7.6, 4.8, 8.5, 6.4, 5.6, 3.5, 7.2, 4.4.
10. The age in years of 8 teachers of a school are 41, 28, 54, 35, 26, 33, 40, 39, find the mean.
11. What is the range of the following data : 46, 63, 25, 23, 39, 42, 21, 47, 68?

12. Calculate mean of the first five multiples of 3.
13. Calculate mean of the first five multiples of 5.
14. Find mean of the first five prime numbers.
15. The average runs scored by a cricketer in 6 innings is 55, find his total score.
16. Find the mean of 8, 12, 5, 6, 10, 7.
17. Find the range of the given data : 7, 18, 9, 24, 11, 45, 3, 16, 10, 2.
18. The mean of five numbers is 18. If one numbers is excluded, their mean is 16. What is the excluded number?
19. The mean of 8, 4, 5,  $x$  and 10 is 8. Find the value of  $x$ .
20. The mean of 4, 3,  $x + 3$ , 9, 10 is 7. Find the value of  $x$ .
21. The mean of 5 numbers is 28. If one number is excluded, their mean is 26. Find the excluded number.
22. If the mean of three observations,  $x + 2$ ,  $x + 4$ ,  $x + 6$ , is 15. Find  $x$ .
23. What is the class mark of the class 30 – 40?
24. What is the lower limit of the class 25 – 35?
25. What is the mean of first 5 multiples of 2?
26. Find the mode of the following data : 14, 9, 10, 14, 11, 12, 14, 13, 14, 11, 10, 14, 11.
27. Find the mode of the ages (in years) of 10 students of class VII.  
13, 12, 14, 12, 13, 12, 14, 12, 13, 14, 12.
28. The marks obtained by 6 students of a class 7th in a test are given below : 12, 15, 23, 23, 19, 21. Find the median.
29. Find the median from the following data written in ascending order :  
29, 41, 45, 63, 67, 69, 70.
30. Find the median : 6, 8, 9, 15, 21, 25, 28, 29.
31. Find the median of the data : 41, 43, 46, 48, 49, 52, 53, 55, 56.
32. Find the median of first 7 odd natural numbers.
33. Find the median of first 8 even natural numbers.
34. The ages in years of 9 teachers in a school are : 23, 34, 37, 39, 41, 42, 43, 45, 47. Find the median.
35. First the value of  $x$  if the mode of the following data is 7 : 5, 4, 7, 4, 7,  $x$ , 7, 4, 3, 5.
36. If 23 is taken out from the given data then what is the new median?  
20, 21, 22, 23, 24, 25, 26, 27.

37. What is the value of  $x$  if the median of given data is 18 : 15, 16, 17,  $x + 2$ , 19, 20, 21?
38. What is the new median, when 36 is added to the data : 32, 34, 36, 38, 40, 42, 44?
39. A dice is thrown once. What is the probability of getting 2?
40. If the probability of winning a game is 0.8, what is the probability of losing it?
41. A bag contains 5 red balls and 3 white balls. What is the probability that one ball drawn from the bag is white?
42. A dice is thrown at random. Find the probability of getting an even number.
43. A coin is tossed 100 times with the following frequencies :  
 Head : 49, Tail : 51  
 When a coin is tossed at random, what is the probability of getting Head?

**Solve Q. 44–50 from Bar Graph**

The bar graph given below represents the number of students studying in five different schools of a city. Study the bar graph and answer the following questions.



44. Which school has the minimum number of students in the above graph and how much?
45. Which school has the maximum number of students and how much?
46. How many schools are having students less than 1200?

47. Find the ratio of the number of students in schools *A* and *D*.  
48. What is the difference between the number of students in schools *B* and *C*?  
49. What is the sum of the number of students in schools *A*, *C* and *E*?  
50. How many total students are there in all the schools?

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## ANSWERS

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|------------------------|---------------------|
| 1. 3                   | 2. 3.5              |
| 3. 9                   | 4. 30               |
| 5. 360                 | 6. 84               |
| 7. 6                   | 8. 6                |
| 9. 6                   | 10. 37 years        |
| 11. 47                 | 12. 9               |
| 13. 15                 | 14. 5.6             |
| 15. 330 runs           | 16. 8               |
| 17. 43                 | 18. 26              |
| 19. 13                 | 20. 6               |
| 21. 36                 | 22. 11              |
| 23. 35                 | 24. 25              |
| 25. 6                  | 26. 14              |
| 27. 12 years           | 28. 23              |
| 29. 63                 | 30. 18              |
| 31. 49                 | 32. 7               |
| 33. 09                 | 34. 41 years        |
| 35. 7                  | 36. 24              |
| 37. 16                 | 38. 37              |
| 39. $\frac{1}{6}$ .    | 40. 0.2             |
| 41. $\frac{3}{8}$ .    | 42. $\frac{1}{2}$ . |
| 43. $\frac{49}{100}$ . | 44. A, 800.         |
| 45. B, 1500            | 46. 3               |
| 47. 2 : 3              | 48. 500             |
| 49. 2800               | 50. 5500            |