Solutions for Class 9 Maths Chapter 24 Measure of Central Tendency

Exercise 24.1

Question 1: If the heights of 5 persons are 140 cm, 150 cm, 152 cm, 158 cm and 161 cm respectively. Find the mean height.

Solution:

The heights of 5 persons are 140 cm , 150 cm , 152 cm , 158 cm and 161 cm (Given)

Mean height = (Sum of heights) / (Total number of persons)

Sum of heights = 140 + 150 + 152 + 158 + 161 = 761
Total number of persons = 5

So, Mean height = 761/5 =152.2

Question 2: Find the mean of 994 , 996 , 998 , 1002 , 1000.
Solution:
Sum of numbers = 994+996+998+1000+100 = 4990
Total counts = 5

Therefore, Mean = (Sum of numbers)/(Total Counts)

= 4990/5

= 998

Mean = 998

Question 3: Find the mean of first five natural numbers.

Solution:

First five natural numbers are 1 , 2 , 3 , 4 , 5.

Sum of all the numbers = 1+2+3+4+5 = 15
Total Numbers = 5

Therefore, Mean = (Sum of numbers)/(Total Numbers)
= 15/5
= 3
Mean = 3

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Question 4: Find the mean of all factors of 10.

Solution:

Factors of 10 are 1, 2, 5, 10.

Sum of all the factors = 1+2+5+10 = 18
Total Numbers = 4

Therefore, Mean = (Sum of factors)/(Total Numbers)
= 18/4
= 4.5

Mean = 4.5

Question 5: Find the mean of first 10 even natural numbers.

Solution:

First 10 even natural numbers = 2 , 4 , 6 , 8 , 10 , 12 , 14 , 16 , 18 , 20

Sum of numbers = 2+4+6+8+10+12+14+16+18+20 = 110

Total Numbers = 10

Now,

Mean = (Sum of numbers) / (Total Numbers)

= 110/10

Mean = 11

Question 6: Find the mean of x , x + 2 , x + 4 , x + 6 , x + 8.

Solution:

Given numbers are x , x + 2 , x + 4 , x + 6 , x + 8.

Sum of numbers = x+(x+2) + (x+4) + (x+6) + (x+8) = 5x+20

Total Numbers = 5

Now,

Mean = (Sum of numbers) / (Total Numbers)

$= (5x+20)/5$

$= 5(x + 4)/5$

$= x + 4$

Mean = $x + 4$

Question 7: Find the mean of first five multiples of 3.

Solution:

First five multiples of 3 are 3 , 6 , 9 , 12 , 15.

Sum of numbers = 3+6+9+12+15 = 45

Total Numbers = 5

Now,

Mean = (Sum of numbers) / (Total Numbers)

= 45/5

=9

Mean = 9

Question 8: Following are the weights (in kg) of 10 new born babies in a hospital on a particular day: 3.4 , 3 .6 , 4.2 , 4.5 , 3.9 , 4.1 , 3.8 , 4.5 , 4.4 , 3.6. Find the mean.

Solution:

The weights of 10 new born babies (in kg): 3.4 , 3 .6 , 4.2 , 4.5 , 3.9 , 4.1 , 3.8 , 4.5 , 4.4 , 3.6

Sum of weights = 3.4+3.6+4.2+4.5+3.9+4.1+3.8+4.5+4.4+3.6 = 40

Total number of babies = 10

No, Mean = (Sum of weights) / (Total number of babies)

= 40/10

= 4

Mean weight = 4 kg

Question 9: The percentage marks obtained by students of a class in mathematics are : 64 , 36 , 47 , 23 , 0 , 19 , 81 , 93 , 72 , 35 , 3 , 1. Find their mean.
Solution:

The percentage marks obtained by students: 64 , 36 , 47 , 23 , 0 , 19 , 81 , 93 , 72 , 35 , 3 , 1

Sum of marks = 64+36+47+23+0+19+81+93+72+35+3+1 = 474

Total students = 12

Now, Mean marks = (Sum of marks) / (Total students)

=474/12

= 39.5

Mean Marks = 39.5

Question 10: The numbers of children in 10 families of a locality are: 2 , 4 , 3 , 4 , 2 , 3 , 5 , 1 , 1 , 5. Find the number of children per family.
Solution:

The numbers of children in 10 families: 2 , 4 , 3 , 4 , 2 , 3 , 5 , 1 , 1 , 5

Total number of children = 2+4+3+4+2+3+5+1+1+5 = 30

Total Families = 10

Number of children per family = Mean = (Total number of children) / (Total Families) = 30/10

= 3

Therefore, Number of children per family is 3.