EduSahara™ Assignment

Name : Mean of Grouped Data

Chapter : Statistics

Grade : CBSE Grade X



1. Heights of 25 students are given below. Find the mean.

| **Height (in cm)** | 130 | 146 | 147 | 149 | 156 | 158 | 162 | 170 |
|---|---|---|---|---|---|---|---|---|
| **No. of students** | 2 | 2 | 4 | 3 | 3 | 4 | 2 | 5 |

(i) $\frac{3861}{25}$ cm (ii) $\frac{3863}{25}$ cm (iii) $\frac{3911}{25}$ cm (iv) $\frac{3862}{25}$ cm (v) $\frac{3886}{25}$ cm

2. Heights of 20 plants are given below. Find the mean.

| **Height (in cm)** | 58 | 60 | 64 | 67 | 70 | 72 | 80 | 91 | 94 | 97 |
|---|---|---|---|---|---|---|---|---|---|---|
| **No. of plants** | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 4 | 2 |

(i) $\frac{1573}{20}$ cm (ii) $\frac{1553}{20}$ cm (iii) $\frac{307}{4}$ cm (iv) $\frac{1533}{20}$ cm (v) $\frac{767}{10}$ cm

3. Ages of 15 students are given below. Find the mean.

| **Age (in years)** | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|
| **No. of students** | 1 | 3 | 3 | 4 | 3 | 1 |

(i) $\frac{218}{15}$ years (ii) $\frac{63}{5}$ years (iii) $\frac{38}{3}$ years (iv) $\frac{203}{15}$ years (v) $\frac{188}{15}$ years

4. Scores of 20 students are given below. Find the mean.

| **Score** | 75 | 76 | 77 | 78 | 81 | 84 | 87 | 88 | 90 |
|---|---|---|---|---|---|---|---|---|---|
| **No. of students** | 2 | 3 | 2 | 1 | 4 | 2 | 2 | 3 | 1 |

(i) $\frac{163}{2}$ (ii) 82 (iii) $\frac{167}{2}$ (iv) $\frac{165}{2}$

5. Rainfall of 15 days are given below. Find the mean.

| **Rainfall (in mm)** | 5 | 6 | 8 | 9 | 10 | 11 | 12 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|
| **No. of days** | 1 | 1 | 3 | 2 | 1 | 1 | 1 | 3 | 2 |

(i) $\frac{53}{5}$ mm (ii) $\frac{173}{15}$ mm (iii) $\frac{32}{3}$ mm (iv) $\frac{188}{15}$ mm (v) $\frac{158}{15}$ mm

6. Temperatures of 30 days are given below. Find the mean.

| **Temperature (in degree C)** | 25 | 28 | 29 | 31 | 32 | 34 | 35 |
|---|---|---|---|---|---|---|---|
| **No. of days** | 5 | 4 | 5 | 5 | 3 | 6 | 2 |

(i) $\frac{967}{30}$ °C (ii) $\frac{303}{10}$ °C (iii) $\frac{907}{30}$ °C (iv) $\frac{937}{30}$ °C (v) $\frac{454}{15}$ °C

7. Weights of 25 students are given below. Find the mean.

| **Weight (in kg)** | 41 | 42 | 43 | 46 | 47 | 51 | 55 | 59 | 60 |
|---|---|---|---|---|---|---|---|---|---|
| **No. of students** | 3 | 4 | 3 | 2 | 3 | 2 | 1 | 4 | 3 |

(i) $\frac{1226}{25}$ kg (ii) $\frac{1228}{25}$ kg (iii) $\frac{1251}{25}$ kg (iv) $\frac{1227}{25}$ kg (v) $\frac{1276}{25}$ kg

8. Wages of 20 labourers are given below. Find the mean.

| **Wage (in rupees)** | 351 | 386 | 427 | 434 | 435 | 447 | 464 | 482 |
|---|---|---|---|---|---|---|---|---|
| **No. of labourers** | 1 | 1 | 2 | 5 | 2 | 3 | 3 | 3 |

(i) ₹441.00 (ii) ₹440.50 (iii) ₹442.50 (iv) ₹441.50

9. The following table shows the weights of 79 persons in a group. Find the mean weight.

| **Weight (in kg)** | 20 - 26 | 27 - 33 | 34 - 40 | 41 - 47 | 48 - 54 | 55 - 61 | 62 - 68 |
|---|---|---|---|---|---|---|---|
| **No. of persons** | 8 | 13 | 20 | 5 | 15 | 11 | 7 |

(i) $\frac{3394}{79}$ kg (ii) $\frac{3471}{79}$ kg (iii) $\frac{3392}{79}$ kg (iv) $\frac{3393}{79}$ kg (v) $\frac{3550}{79}$ kg

10. The following table shows the weights of 79 persons in a group. Find the mean weight.

| **Weight (in kg)** | 10 - 15 | 15 - 20 | 20 - 25 | 25 - 30 | 30 - 35 | 35 - 40 |
|---|---|---|---|---|---|---|
| **No. of persons** | 12 | 18 | 9 | 17 | 9 | 14 |

(i) $\frac{1953}{79}$ kg (ii) $\frac{4063}{158}$ kg (iii) $\frac{3905}{158}$ kg (iv) $\frac{3907}{158}$ kg (v) $\frac{4221}{158}$ kg

11. The daily wages of 65 workers in a factory are given below. Find the mean wage.

| **Wage (in rupees)** | 30 - 40 | 41 - 51 | 52 - 62 | 63 - 73 | 74 - 84 |
|---|---|---|---|---|---|
| **No. of workers** | 8 | 25 | 8 | 12 | 12 |

(i) ₹58.15 (ii) ₹56.31 (iii) ₹57.15 (iv) ₹56.15 (v) ₹56.23

12. The daily wages of 113 workers in a factory are given below. Find the mean wage.

| **Wage (in rupees)** | 30 - 38 | 38 - 46 | 46 - 54 | 54 - 62 | 62 - 70 | 70 - 78 | 78 - 86 |
|---|---|---|---|---|---|---|---|
| **No. of workers** | 27 | 13 | 21 | 23 | 6 | 17 | 6 |

(i) ₹54.04 (ii) ₹53.05 (iii) ₹55.04 (iv) ₹53.04 (v) ₹53.06

13. A frequency distribution table is given below. Find the mean .

| **Class-Interval** | 13 - 19 | 20 - 26 | 27 - 33 | 34 - 40 | 41 - 47 |
|---|---|---|---|---|---|
| **Frequency** | 18 | 39 | 12 | 8 | 41 |

(i) $\frac{3647}{118}$ (ii) $\frac{1823}{59}$ (iii) $\frac{3763}{118}$ (iv) $\frac{3645}{118}$ (v) $\frac{3881}{118}$

14. A frequency distribution table is given below. Find the mean .

| **Class-Interval** | 13 - 19 | 19 - 25 | 25 - 31 | 31 - 37 | 37 - 43 | 43 - 49 |
|---|---|---|---|---|---|---|
| **Frequency** | 26 | 6 | 23 | 2 | 19 | 28 |

(i) $\frac{829}{26}$ (ii) $\frac{827}{26}$ (iii) $\frac{853}{26}$ (iv) $\frac{879}{26}$ (v) $\frac{414}{13}$

15. The following frequency distribution table gives the monthly consumption of electricity of 46 consumers in a locality. Find the mean units.

| **Monthly consumption (in units)** | 62 - 72 | 72 - 82 | 82 - 92 | 92 - 102 | 102 - 112 |
|---|---|---|---|---|---|
| **No. of consumers** | 11 | 8 | 8 | 14 | 5 |

(i) $\frac{1973}{23}$ units (ii) $\frac{1972}{23}$ units (iii) $\frac{1971}{23}$ units (iv) $\frac{2017}{23}$ units (v) $\frac{1994}{23}$ units

16. The following frequency distribution table gives the monthly consumption of electricity of 63 consumers in a locality. Find the median units.

| **Monthly consumption (in units)** | 78 - 98 | 98 - 118 | 118 - 138 | 138 - 158 | 158 - 178 |
|---|---|---|---|---|---|
| **No. of consumers** | 14 | 8 | 11 | 25 | 5 |

(i) $\frac{1510}{11}$ units (ii) $\frac{1488}{11}$ units (iii) $\frac{1489}{11}$ units (iv) $\frac{1490}{11}$ units (v) $\frac{1499}{11}$ units

17. If the mean of the following frequency distribution is $7\frac{17}{30}$,

find the value of 'x'.

| **Value** | **Frequency** |
|---|---|
| 5 | 4 |
| 6 | 6 |
| 7 | 4 |
| 8 | x |
| 9 | 7 |
| 10 | 4 |

(i) 6 (ii) 3 (iii) 5 (iv) 4 (v) 8

18. The heights of 21 pupils in a school are given below. Calculate the mean height correct to 2 decimal places.

| **Height (in cm)** | less than 131 | less than 138 | less than 145 | less than 152 | less than 159 |
|---|---|---|---|---|---|
| **No. of pupils** | 3 | 6 | 10 | 16 | 21 |

(i) 159.83 cm (ii) 127.83 cm (iii) 143.83 cm (iv) 161.83 cm (v) 125.83 cm

19. The daily wage of 43 workers of a factory is given below. Calculate the mean wage correct to 2 decimal places.

| **Daily income (in Rs)** | less than 220 | less than 240 | less than 260 | less than 280 | less than 300 |
|---|---|---|---|---|---|
| **No. of workers** | 8 | 16 | 26 | 33 | 43 |

(i) ₹251.40 (ii) ₹266.40 (iii) ₹267.40 (iv) ₹228.40 (v) ₹233.40

20. The marks obtained by 37 students of a class in an examination is given below. Calculate the mean mark correct to 2 decimal places.

| **Marks** | less than 20 | less than 25 | less than 30 | less than 35 | less than 40 |
|---|---|---|---|---|---|
| **No. of students** | 8 | 14 | 20 | 30 | 37 |

(i) 22.77 (ii) 32.77 (iii) 24.77 (iv) 30.77 (v) 27.77

21. The production yield in kg per hectare of wheat of 44 farms of a village is given below. Calculate the mean yield correct to 2 decimal places.

| **Production yield (in kg/ha)** | less than 69 | less than 78 | less than 87 | less than 96 | less than 105 | less than 114 |
|---|---|---|---|---|---|---|
| **Number of farms** | 8 | 15 | 22 | 28 | 37 | 44 |

(i) 84.00 (ii) 90.00 (iii) 87.00 (iv) 92.00 (v) 82.00

## Assignment Key

| | | | | | |
|---|---|---|---|---|---|
| 1) (i) | 2) (iv) | 3) (v) | 4) (i) | 5) (v) | 6) (iii) |
| 7) (i) | 8) (ii) | 9) (iii) | 10) (iii) | 11) (iv) | 12) (iv) |
| 13) (iv) | 14) (ii) | 15) (iii) | 16) (ii) | 17) (iii) | 18) (iii) |
| 19) (i) | 20) (v) | 21) (iii) | | | |