EduSahara™ Assignment

Name : Arithmetic Mean Miscellaneous Problems

Chapter : Measures of Central Tendency

Grade : ICSE Grade X



1. The scores obtained by 9 students in a test are given below. Find the mean score. 20 3 16 15 15 11 6 2 7

   (i) 20 (ii) $10\frac{5}{9}$ (iii) 18 (iv) 15 (v) 11

2. If the mean of 3 2 x 1 6 is $4\frac{2}{5}$, find the value of x.

   (i) 8 (ii) 10 (iii) 11 (iv) 9 (v) 12

3. Given the mean of 7 samples as $10\frac{3}{7}$, what is the mean if a sample value is increased by 13 ?

   (i) $\frac{86}{7}$ (ii) $\frac{110}{9}$ (iii) 12 (iv) $\frac{62}{5}$ (v) $\frac{88}{7}$

4. Given the mean of 5 samples as $10\frac{3}{5}$, what is the mean if a sample value is decreased by 18 ?

   (i) 7 (ii) 5 (iii) 6 (iv) 10 (v) 8

5. Given the mean of 10 samples as $5\frac{2}{5}$,
   what is the new mean if two samples 9 and 4 are added ?

   (i) $\frac{57}{10}$ (ii) $\frac{65}{12}$ (iii) $\frac{67}{12}$ (iv) $\frac{11}{2}$ (v) $\frac{23}{4}$

6. Given the mean of 12 samples as $5\frac{5}{6}$,
   what is the new mean if two samples 6 and 5 are removed ?

   (i) $\frac{59}{10}$ (ii) $\frac{23}{4}$ (iii) $\frac{49}{8}$ (iv) $\frac{57}{10}$ (v) $\frac{61}{10}$

7. Find the mean of all prime numbers between 40 and 70.

   (i) 53 (ii) 56 (iii) 54 (iv) 52 (v) 50

8. Find the mean of all prime numbers between 50 and 100.

   (i) $\frac{368}{5}$ (ii) $\frac{366}{5}$ (iii) $\frac{364}{5}$ (iv) $\frac{220}{3}$ (v) $\frac{512}{7}$

9. Find the mean of first 9 multiples of 19.

   (i) 97 (ii) 95 (iii) 94 (iv) 92 (v) 96

10. Find the mean of first 10 whole numbers.

    (i) $\frac{17}{4}$ (ii) $\frac{9}{2}$ (iii) 5 (iv) $\frac{7}{2}$ (v) $\frac{11}{2}$

11. Find the mean of first 8 multiples of 6.

(i) 27 (ii) 28 (iii) 26 (iv) 29 (v) 25

12. Find the mean of the first 20 odd numbers.

(i) 18 (ii) 22 (iii) 21 (iv) 19 (v) 20

13. Find the mean of the first 10 even numbers.

(i) 13 (ii) 11 (iii) 8 (iv) 10 (v) 12

14. The marks obtained by 12 students in a test are given below. Find their mean marks.

12 16 4 27 42 14 4 42 13 13 14 18

(i) $\frac{75}{4}$ (ii) $\frac{73}{4}$ (iii) $\frac{71}{4}$ (iv) $\frac{37}{2}$ (v) $\frac{109}{6}$

15. The marks obtained by 10 students in a test are given below. Find the mean of their marks when the marks of each student is increased by 9.

41 9 17 10 16 21 22 39 6 9

(i) 29 (ii) 30 (iii) 27 (iv) 25 (v) 28

16. The marks obtained by 15 students in a test are given below. Find the mean of their marks when the marks of each student is decreased by 5.

34 8 5 35 9 30 4 37 28 45 49 35 5 21 45

(i) 21 (ii) 24 (iii) 20 (iv) 18 (v) 22

17. The marks obtained by 12 students in a test are given below. Find the mean of their marks when the marks of each student is doubled.

30 39 41 16 25 43 47 31 20 12 50 4

(i) $\frac{181}{3}$ (ii) $\frac{297}{5}$ (iii) 61 (iv) 59 (v) $\frac{179}{3}$

18. Heights of 11 students (in cm) are given below. Find the mean height.

155 149 160 147 125 130 135 129 174 154 129

(i) $\frac{1609}{11}$ cm (ii) $\frac{1598}{11}$ cm (iii) $\frac{1589}{11}$ cm (iv) $\frac{1588}{11}$ cm (v) $\frac{1587}{11}$ cm

19. Heights of 14 plants (in cm) are given below. Find the mean height.

57 72 70 74 53 96 99 87 53 60 53 75 89 96

(i) $\frac{531}{7}$ cm (ii) $\frac{519}{7}$ cm (iii) $\frac{524}{7}$ cm (iv) $\frac{517}{7}$ cm (v) 74 cm

20. Ages of 15 students (in years) are given below. Find the mean age.

12 10 10 12 10 12 11 11 10 11 11 10 14 14 13

(i) $\frac{62}{5}$ years (ii) $\frac{58}{5}$ years (iii) $\frac{67}{5}$ years (iv) $\frac{59}{5}$ years (v) $\frac{57}{5}$ years

21. Rainfall of 13 days (in mm) are given below. Find the mean rainfall.

15 15 15 10 8 5 8 5 8 6 13 7 10

(i) $\frac{151}{13}$ mm (ii) $\frac{125}{13}$ mm (iii) $\frac{126}{13}$ mm (iv) $\frac{138}{13}$ mm (v) $\frac{127}{13}$ mm

22. Scores of 10 students are given below. Find the mean score.
75 83 73 74 73 88 87 75 89 83

(i) 78 (ii) 82 (iii) 81 (iv) 79 (v) 80

23. Temperatures of 13 days (in °C) are given below. Find the mean temperature.
27 28 34 33 33 32 28 32 27 34 31 27 25

(i) $\frac{404}{13}$ °C (ii) $\frac{393}{13}$ °C (iii) $\frac{391}{13}$ °C (iv) $\frac{417}{13}$ °C (v) $\frac{392}{13}$ °C

24. Weights of 11 students (in kg) are given below. Find the mean weight.
48 55 48 48 58 58 43 49 54 54 53

(i) $\frac{568}{11}$ kg (ii) $\frac{579}{11}$ kg (iii) $\frac{590}{11}$ kg (iv) $\frac{569}{11}$ kg (v) $\frac{570}{11}$ kg

25. Daily wages of 14 labourers (in ₹) are given below. Find the mean wage.
368 402 375 349 355 305 416 329 365 401 356 448 480 370

(i) ₹380.07 (ii) ₹380.00 (iii) ₹380.93 (iv) ₹379.93 (v) ₹381.93

26. The arithmetic mean of a + 2, a, and a - 2 is

(i) a (ii) a + 2 (iii) 3a (iv) a - 2

27. The arithmetic mean of 48 25 28 25 25 is

(i) 30.2 (ii) 29.2 (iii) 32.2 (iv) 28.2 (v) 31.2

28. If the mean of 8 samples is $22\frac{5}{8}$,
what is the new mean if 7 is added to each number.

(i) $\frac{239}{8}$ (ii) $\frac{237}{8}$ (iii) $\frac{59}{2}$ (iv) $\frac{179}{6}$ (v) $\frac{235}{8}$

29. If the mean of 4 samples is $19\frac{3}{4}$,
what is the new mean if 7 is subtracted from each number.

(i) $\frac{53}{4}$ (ii) $\frac{25}{2}$ (iii) $\frac{27}{2}$ (iv) $\frac{51}{4}$ (v) $\frac{49}{4}$

30. If the mean of 6 samples is $30\frac{2}{3}$,
what is the new mean if each number is multiplied by 4 .

(i) $\frac{368}{3}$ (ii) $\frac{370}{3}$ (iii) $\frac{612}{5}$ (iv) 124 (v) 122

31. The mean of 6 numbers is $9\frac{1}{6}$. Upon excluding one number, the mean becomes $7\frac{1}{5}$. Find the excluded number.

(i) 20 (ii) 22 (iii) 18 (iv) 17 (v) 19

32. The mean of 8 numbers is $8\frac{5}{8}$. Upon adding one number, the mean becomes $9\frac{2}{3}$. Find the included number.

(i) 17 (ii) 19 (iii) 15 (iv) 20 (v) 18

33. The mean of the below random sample is $35\frac{1}{2}$. Find the missing quantity. 38 27 38 46 x 23 14 45 42 40

(i) 44 (ii) 42 (iii) 39 (iv) 41 (v) 43

## Assignment Key

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|---|---|---|---|---|---|
| 1) (ii) | 2) (ii) | 3) (i) | 4) (i) | 5) (iii) | 6) (i) |
| 7) (i) | 8) (ii) | 9) (ii) | 10) (ii) | 11) (i) | 12) (v) |
| 13) (ii) | 14) (ii) | 15) (v) | 16) (i) | 17) (v) | 18) (v) |
| 19) (iv) | 20) (v) | 21) (ii) | 22) (v) | 23) (iii) | 24) (i) |
| 25) (iv) | 26) (i) | 27) (i) | 28) (ii) | 29) (iv) | 30) (i) |
| 31) (v) | 32) (v) | 33) (ii) | | | |