

EduSahara™ Learning Center Assignment**Grade : Class X, ICSE****Chapter : Measures of Central Tendency****Name : Arithmetic Mean Miscellaneous Problems**

The scores obtained by 10 students in a test are

1. 2, 19, 7, 6, 6, 2, 14, 15, 4, 3

Find the mean score.

- (i) 2 (ii) 19 (iii) 17 (iv) $7\frac{4}{5}$ (v) 6

2. If the mean of 2, 7, 9, 5, x, 1, 4, 6 is $5\frac{1}{4}$, find the value of x.

- (i) 9 (ii) 7 (iii) 11 (iv) 5 (v) 8

Given the mean of 11 samples as 10,

3. what is the mean if a sample value is increased by 13?

- (i) $\frac{125}{11}$ (ii) $\frac{101}{9}$ (iii) $\frac{145}{13}$ (iv) $\frac{123}{11}$ (v) 11

Given the mean of 8 samples as $11\frac{5}{8}$,

4. what is the mean if a sample value is decreased by 20?

- (i) $\frac{73}{8}$ (ii) $\frac{71}{8}$ (iii) $\frac{55}{6}$ (iv) $\frac{91}{10}$ (v) $\frac{75}{8}$

Given the mean of 10 samples as $6\frac{2}{5}$,

5. what is the new mean if two samples 4 and 8 are added?

- (i) $\frac{31}{5}$ (ii) $\frac{17}{3}$ (iii) $\frac{19}{3}$ (iv) 7

Given the mean of 12 samples as $4\frac{1}{4}$,

6. what is the new mean if two samples 6 and 1 are removed?

- (i) $\frac{24}{5}$ (ii) $\frac{30}{7}$ (iii) $\frac{14}{3}$ (iv) 4 (v) $\frac{22}{5}$

7. Find the mean of all prime numbers between 40 and 100.

- (i) $\frac{861}{13}$ (ii) $\frac{199}{3}$ (iii) $\frac{865}{13}$ (iv) $\frac{731}{11}$ (v) $\frac{863}{13}$

8. Find the mean of all prime numbers between 20 and 100.

- (i) $\frac{869}{15}$ (ii) $\frac{981}{17}$ (iii) $\frac{983}{17}$ (iv) $\frac{985}{17}$ (v) $\frac{1097}{19}$

- 9.

Find the mean of first 9 multiples of 18 .

- (i) 89 (ii) 93 (iii) 91 (iv) 90 (v) 87
-

10. Find the mean of first 10 whole numbers.

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

11. Find the mean of first 6 multiples of 4 .

- (i) 15 (ii) 14 (iii) 11 (iv) 16 (v) 13
-

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

- (i) 17 (ii) 22 (iii) 21 (iv) 19 (v) 20
-

13. Find the mean of the first 20 even numbers.

- (i) 18 (ii) 20 (iii) 22 (iv) 21 (v) 23
-

The marks obtained by 13 students in a test are given below.

14. Find their mean marks.

34 , 37 , 22 , 29 , 12 , 1 , 6 , 28 , 44 , 21 , 50 , 17 , 14

- (i) $\frac{121}{5}$ (ii) $\frac{313}{13}$ (iii) $\frac{267}{11}$ (iv) $\frac{317}{13}$ (v) $\frac{315}{13}$
-

The marks obtained by 12 students in a test are given below.

Find the mean of their marks when the marks of

15. each student is increased by 8 .

35 , 36 , 50 , 24 , 1 , 47 , 45 , 34 , 44 , 22 , 1 , 21

- (i) 38 (ii) 35 (iii) 37 (iv) 39 (v) 41
-

The marks obtained by 11 students in a test are given below.

Find the mean of their marks when the marks of

16. each student is decreased by 3 .

41 , 27 , 6 , 13 , 17 , 19 , 25 , 15 , 7 , 35 , 43

- (i) $\frac{215}{11}$ (ii) $\frac{213}{11}$ (iii) $\frac{59}{3}$ (iv) $\frac{217}{11}$ (v) $\frac{253}{13}$
-

The marks obtained by 13 students in a test are given below.

17. Find the mean of their marks when the marks of each student is doubled.

43 , 40 , 47 , 8 , 49 , 9 , 3 , 37 , 47 , 9 , 21 , 21 , 45

- (i) $\frac{760}{13}$ (ii) $\frac{874}{15}$ (iii) $\frac{756}{13}$ (iv) $\frac{758}{13}$ (v) $\frac{642}{11}$
-

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

18. 146 , 161 , 148 , 138 , 131 , 142 , 168 , 157 , 170 , 171 , 171 , 143 , 132 , 174
- (i) 154 cm (ii) $\frac{1083}{7}$ cm (iii) $\frac{1090}{7}$ cm (iv) $\frac{1077}{7}$ cm (v) $\frac{1076}{7}$ cm
-

Heights of 13 plants (in cm) are given below. Find the mean height.

19. 87 , 83 , 54 , 56 , 52 , 55 , 61 , 88 , 75 , 51 , 66 , 51 , 89
- (i) $\frac{881}{13}$ cm (ii) $\frac{894}{13}$ cm (iii) $\frac{869}{13}$ cm (iv) $\frac{868}{13}$ cm (v) $\frac{870}{13}$ cm
-

Ages of 14 students (in years) are given below. Find the mean age.

20. 15 , 10 , 11 , 12 , 11 , 13 , 10 , 13 , 11 , 15 , 11 , 11 , 11 , 13
- (i) $\frac{167}{14}$ years (ii) 12 years (iii) $\frac{181}{14}$ years (iv) $\frac{169}{14}$ years (v) $\frac{195}{14}$ years
-

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

21. 14 , 13 , 5 , 12 , 7 , 13 , 8 , 13 , 8 , 7 , 11 , 10 , 11
- (i) $\frac{158}{13}$ mm (ii) $\frac{134}{13}$ mm (iii) $\frac{145}{13}$ mm (iv) $\frac{133}{13}$ mm (v) $\frac{132}{13}$ mm
-

Scores of 13 students are given below. Find the mean score.

22. 76 , 77 , 86 , 71 , 77 , 85 , 79 , 90 , 82 , 87 , 74 , 79 , 77
- (i) 80 (ii) 79 (iii) 82 (iv) 81 (v) 78
-

Temperatures of 14 days (in °C) are given below. Find the mean temperature.

23. 27 , 29 , 34 , 28 , 28 , 26 , 32 , 31 , 31 , 26 , 33 , 33 , 34 , 35
- (i) $\frac{65}{2}$ °C (ii) 31 °C (iii) $\frac{61}{2}$ °C (iv) $\frac{63}{2}$ °C
-

Weights of 13 students (in kg) are given below. Find the mean weight.

24. 43 , 51 , 52 , 60 , 56 , 57 , 50 , 45 , 52 , 57 , 56 , 45 , 42
- (i) $\frac{692}{13}$ kg (ii) $\frac{679}{13}$ kg (iii) $\frac{666}{13}$ kg (iv) $\frac{668}{13}$ kg (v) $\frac{667}{13}$ kg
-

Daily wages of 12 labourers (in ₹) are given below. Find the mean wage.

25. 337 , 346 , 412 , 346 , 338 , 417 , 376 , 427 , 332 , 463 , 473 , 345
- (i) ₹ 386.33 (ii) ₹ 384.33 (iii) ₹ 385.33 (iv) ₹ 385.00 (v) ₹ 384.67
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26. The arithmetic mean of $a + 2$, a , and $a - 2$ is

- (i) $a + 2$ (ii) $3a$ (iii) a (iv) $a - 2$
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27. The arithmetic mean of 35 , 50 , 32 , 42 , 17 , 42 is

(i) 37.33 (ii) 34.33 (iii) 38.33 (iv) 36.33 (v) 35.33

28. If the mean of 5 samples is $21\frac{4}{5}$,
what is the new mean if 3 is added to each number.

(i) $\frac{122}{5}$ (ii) $\frac{124}{5}$ (iii) $\frac{126}{5}$ (iv) $\frac{76}{3}$ (v) $\frac{172}{7}$

29. If the mean of 5 samples is $12\frac{1}{5}$,
what is the new mean if 8 is subtracted from each number.

(i) $\frac{21}{5}$ (ii) $\frac{23}{5}$ (iii) $\frac{19}{5}$ (iv) $\frac{29}{7}$ (v) $\frac{13}{3}$

30. If the mean of 8 samples is $23\frac{3}{4}$,
what is the new mean if each number is multiplied by 3.

(i) $\frac{287}{4}$ (ii) $\frac{143}{2}$ (iii) $\frac{427}{6}$ (iv) $\frac{283}{4}$ (v) $\frac{285}{4}$

31. The mean of 10 numbers is $10\frac{1}{10}$. Upon excluding one number,
the mean becomes $10\frac{7}{9}$. Find the excluded number.

(i) 4 (ii) 7 (iii) 3 (iv) 2 (v) 5

32. The mean of 7 numbers is $14\frac{6}{7}$. Upon adding one number,
the mean becomes $14\frac{5}{8}$. Find the included number.

(i) 10 (ii) 16 (iii) 13 (iv) 12 (v) 14

33. The mean of the below random sample is $31\frac{4}{5}$. Find the missing quantity.
22, 40, x, 15, 35, 42, 27, 19, 31, 45

(i) 43 (ii) 40 (iii) 44 (iv) 42 (v) 41

Assignment Key

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