

Name: Chapter Based Worksheet

**Chapter: Measures of Central Tendency** 

Grade: ICSE Grade X

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- 1. Find the mean of first 9 multiples of 10.
  - (i) 47 (ii) 50 (iii) 49 (iv) 51 (v) 53

Weights of 30 students are given below. Find the mean.

- Weight (in kg) | 42 | 44 | 48 | 49 | 50 | 52 | 55 | 56 | 59 No. of students 4
  - (i)  $\frac{1501}{30}$  kg (ii)  $\frac{1531}{30}$  kg (iii)  $\frac{491}{10}$  kg (iv)  $\frac{1471}{30}$  kg (v)  $\frac{736}{15}$  kg

If the mean of the following frequency distribution is  $43\frac{1}{6}$ ,

find the value of 'x'.

	<b>Class-Interval</b>	Frequency
	20 - 25	2
3.	26 - 31	9
	32 - 37	4
	38 - 43	Х
	44 - 49	10
	50 - 55	7
	56 - 61	8

- (i) 7 (ii) 6 (iii) 2 (iv) 5 (v) 4
- 4. Find the mean of all prime numbers between 30 and 90.
  - (i)  $\frac{535}{9}$  (ii)  $\frac{415}{7}$  (iii)  $\frac{419}{7}$  (iv)  $\frac{417}{7}$  (v)  $\frac{299}{5}$

Ages of 25 students are given below. Find the mean.

- **Age (in years)** | 10 | 11 | 12 | 13 | 14 | 15 No. of students 4 4
  - (i)  $\frac{328}{25}$  years (ii)  $\frac{304}{25}$  years (iii)  $\frac{61}{5}$  years (iv)  $\frac{303}{25}$  years (v)  $\frac{353}{25}$  years
- Temperatures of 13 days (in  $^{\circ}$ C) are given below. Find the mean temperature.

34 32 30 31 31 29 28 27 34 26 35 25 34

- (i)  $\frac{396}{13}$  °C (ii)  $\frac{422}{13}$  °C (iii)  $\frac{409}{13}$  °C (iv)  $\frac{398}{13}$  °C (v)  $\frac{397}{13}$  °C
- The scores obtained by 10 students in a test are given below. Find the mean score. 
  3 18 19 16 17 11 9 19 2 18

(i)  $13\frac{1}{5}$  (ii) 17 (iii) 2 (iv) 18 (v) 19

- 8. The arithmetic mean of 27 7 25 10 9 is
  - (i) 16.6 (ii) 14.6 (iii) 17.6 (iv) 15.6 (v) 13.6
- 9. Find the mean of the first 20 odd numbers.
  - (i) 18 (ii) 21 (iii) 19 (iv) 22 (v) 20

The following table shows the weights of 60 persons in a group. Find the mean weight.

10.	Weight (in kg)	30 - 36	37 - 43	44 - 50	51 - 57	58 - 64
	No. of persons	8	19	11	6	16

(i) 
$$\frac{967}{20}$$
 kg (ii)  $\frac{987}{20}$  kg (iii)  $\frac{949}{20}$  kg (iv)  $\frac{237}{5}$  kg (v)  $\frac{947}{20}$  kg

The following frequency distribution table gives the monthly consumption of electricity of 102 consumers in a locality. Find the mean units.

11. Monthly consumption (in units) 49 - 59 59 - 69 69 - 79 79 - 89 89 - 99 99 - 109 109 - 119

No. of consumers 25 16 25 9 10 7

(i) 
$$\frac{1327}{17}$$
 units (ii)  $\frac{1310}{17}$  units (iii)  $\frac{1293}{17}$  units (iv)  $\frac{1294}{17}$  units (v)  $\frac{1295}{17}$  units

If the mean of 6 samples is  $21\frac{1}{2}$ ,

what is the new mean if 8 is added to each number.

(i) 
$$\frac{117}{4}$$
 (ii)  $\frac{61}{2}$  (iii)  $\frac{57}{2}$  (iv) 30 (v)  $\frac{59}{2}$ 

The marks obtained by 14 students in a test are given below. Find the mean of their marks when the marks of each student is doubled.

45 42 42 7 6 23 17 43 36 13 22 29 24 1

(i) 53 (ii) 50 (iii) 51 (iv) 47 (v) 49

The daily wage of 45 workers of a factory is given below. Calculate the mean wage correct to 2 decimal places.

14.	Daily income (in Rs)	less than 210	less than 220	less than 230	less than 240	less than 250	less than 260
	No. of workers	5	15	22	32	40	45

(i) ₹217.67 (ii) ₹244.67 (iii) ₹256.67 (iv) ₹229.67

The daily wages of 126 workers in a factory are given below. Find the mean wage.

15.	Wage (in rupees)	20 - 26	26 - 32	32 - 38	38 - 44	44 - 50	50 - 56
	No. of workers	11	23	13	24	26	29

(i) ₹40.71 (ii) ₹42.62 (iii) ₹40.62 (iv) ₹41.62 (v) ₹40.67

The marks obtained by 51 students of a class in an examination is given below. Calculate the mean mark correct to 2 decimal places.

16.	Marks	less than 15	less than 25	less than 35	less than 45	less than 55	less than 65	less than 75
	No. of students	6	15	25	31	40	45	51

(i) 33.24 (ii) 41.24 (iii) 38.24 (iv) 43.24 (v) 35.24

Wages of 30 labourers are given below. Find the mean.

			_								
17.	Wage (in rupees)	328	355	364	378	391	399	404	412	418	490
	No. of labourers	3	4	2	2	5	5	1	4	2	2

(i) ₹390.20 (ii) ₹390.60 (iii) ₹392.20 (iv) ₹391.20 (v) ₹390.40

Rainfall of 25 days are given below. Find the mean.

	•		_							
18.	Rainfall (in mm)	5	7	9	10	11	12	13	14	15
	No. of days	3	5	3	3	1	1	3	3	3

(i) 
$$\frac{306}{25}$$
 mm (ii)  $\frac{281}{25}$  mm (iii)  $\frac{258}{25}$  mm (iv)  $\frac{256}{25}$  mm (v)  $\frac{257}{25}$  mm

If the mean of 4 samples is  $31\frac{3}{4}$ ,

what is the new mean if 5 is subtracted from each number.

(i) 
$$\frac{109}{4}$$
 (ii)  $\frac{107}{4}$  (iii)  $\frac{105}{4}$  (iv)  $\frac{53}{2}$  (v)  $\frac{55}{2}$ 

Daily wages of 13 labourers (in ₹) are given below. Find the mean wage.

493 472 343 335 479 405 474 404 406 449 340 495 317

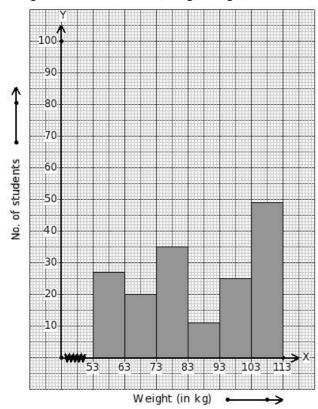
(i) ₹416.46 (ii) ₹416.38 (iii) ₹418.31 (iv) ₹416.31 (v) ₹417.31

Given the mean of 10 samples as  $5\frac{3}{10}$ ,

what is the new mean if two samples 2 and 7 are added?

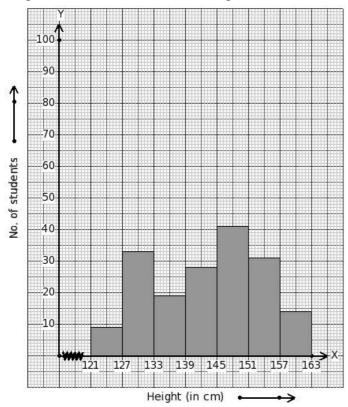
(i) 
$$\frac{41}{8}$$
 (ii)  $\frac{31}{6}$  (iii)  $\frac{11}{2}$  (iv)  $\frac{21}{4}$  (v)  $\frac{29}{6}$ 

22. Weights of 167 students (in kg) are given below. Calculate the mean weight from the given histogram.



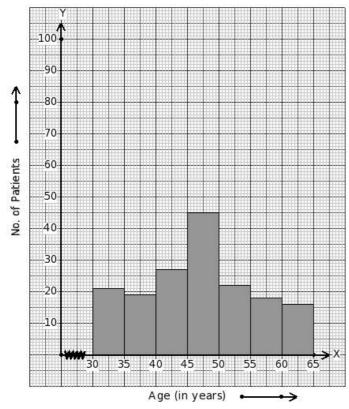
(i) 81.02 kg (ii) 86.02 kg (iii) 91.02 kg (iv) 83.02 kg (v) 89.02 kg

23. Heights of 175 students (in cm) are given below. Calculate the mean height from the given histogram.



(i)  $160.13 \ \text{cm}$  (ii)  $130.13 \ \text{cm}$  (iii)  $143.13 \ \text{cm}$  (iv)  $129.13 \ \text{cm}$  (v)  $155.13 \ \text{cm}$ 

The histogram given below is a study of heart patients of different age groups. Using the data in the diagram, calculate the mean age



(i) 46.85 years (ii) 45.85 years (iii) 48.85 years (iv) 44.85 years (v) 47.85 years

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

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

	Assignment Key							
1) (ii)	2) (iv)	3) (iv)	4) (iv)	5) (iv)	6) (i)			
7) (i)	8) (iv)	9) (v)	10) (v)	11) (iii)	12) (v)			
13) (ii)	14) (iv)	15) (iii)	16) (iii)	17) (i)	18) (iv)			
19) (ii)	20) (iv)	21) (ii)	22) (ii)	23) (iii)	24) (i)			
25) (iii)								

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