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Class - 7, SEC - D,
AVERAGE (Worksheet)

A. Fill in the blanks.

1) The average of a set of values is the sum of the values divided by the ~~no~~ number of values in the set.

2) Average is a number which is roughly between the smallest and the largest ~~of values in the set~~ ^{numbers or} quantity.

3. The average gives us an idea about the general value of a group.

4. The average is the arithmetical mean value of the number of given values.

5. $\text{Sum of the values} = \text{Average} \times$
No. of quantities

2. Do as directed.

1) Average of 1st ⁵ Prime numbers

Ans- 2, 3, 5, 7, 11 are five first prime

number. Average = $\frac{\text{The sum of the given quantities}}{\text{No. of quantities}}$

$$= \frac{28}{5} = 5.6$$

b) What is the average weight: 14g, 16g, 36g, 42g

36g, 42g

Ans. Average = $\frac{14+16+36+42}{4} = \frac{108}{4} = 27$

c) Find the average if number of item is ~~105~~ ¹⁵ and the total value of item is 105.

Ans.

$$\text{Average} = \frac{\text{The total value of item}}{\text{No. of item}}$$

$$= \frac{105}{7} = 15$$

d) Find the average of $\frac{6}{7}, \frac{2}{5}, \frac{11}{7}$

Ans. Average = $\frac{\frac{6}{7} + \frac{2}{5} + \frac{11}{7}}{3} = \frac{30+14+55}{35} = \frac{99}{35}$

$$= \frac{99}{35}$$

$$= \frac{99}{35} = \frac{99}{35} \times \frac{1}{1} = \frac{33}{35}$$

2) Find the missing value: No. of items are 21 and average is 21 then sum of the item is $21 \times 21 = 441$

3. Solve as per the given instructions

a. The average height of a family of five is 150 cm. If the height of 4 family members is 153 cm, 150 cm, 151 cm, and 152 cm, find the height of the fifth member.

Ans Average height of family of five = 150 cm
of member

No of family $n = 5$

Average = No of family member

Total height of family member = 150×5

= 750 cm

$(153 + 150 + 151 + 152)$

Four members height = 606 cm

= $750 - 606 = 144 \text{ cm}$

\therefore So, the height of the fifth members is 144 cm



b) The average of 5 numbers is 25 and the average of another 5 numbers is 35. Find the average of the 10 numbers taken together.

Ans - The sum of 5 no = Average \times no of quantities = $25 \times 5 = 125$

The sum of another 5 no = Average \times no of quantities = $25 \times 5 = 175$

$$= \frac{\text{The average of the 10 no} = \frac{125 + 175}{10}}{10} = \frac{300}{10} = 30 \leftarrow \text{Answer}$$

c) Mini's father earns an average

₹ 9800 a week. How much does he earn in 52 weeks?

Ans - Average earning on a week = 9800

Average earning on 52 week =

$$9800 \times 52 = \text{₹ } 5,10,600$$

\therefore He earns ₹ 5,10,600 in 52 weeks

d) Average Age of 8 students =

$$\frac{\text{Sum of given age} - 142 + 144 + 151 + 138 + 166 + 144 + 143 + 168}{8} = 149.5$$

= 12 years 10 months

^{Weight-Weight}
Average age of 8 student = $\frac{33 + 34 + 38 + 33 + 36 + 32 + 36 + 38}{8} = \frac{280}{8} = 35$

∴ So The average weight of 8 student is 35 kg.

e) The average of 11, 35, ~~12~~, 65, 11, 7.25, 14.85, 15.55

Sum of given numbers

$$= 11.35 + 12.65 + 11.7.25 + 14.85 + 15.55 = \frac{61.76}{8} = \frac{72.65}{6} = 12.108$$