

Ch-11

AVERAGE

WORKSHEET

1. The average of set values
the set of values divided
by the number of values
in the set. ~~of values~~.

(b) Average is a number between
the smallest and the largest
number ~~of~~ or quantity.

c. Average gives us an idea
about an general value of
a group.

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

e. Sum of the values = Average \times No. of values

2(a) 1st Av of prime numbers = 2, 3, 5, 7, 11

$$\text{Average} = \frac{2+3+5+7+11}{5} = \frac{28}{5} = \cancel{5.6} = 5\frac{3}{5}$$

$$= \frac{56}{10} = 5.6$$

(b) Average-weight = $\frac{16+14+30+42}{4}$

$$= \frac{102}{4} = \frac{51}{2} = \frac{51 \times 27}{2} = 27.09$$

(c) Average = $\frac{108}{15} = 7$

(d) Average of $\frac{7}{5}, \frac{11}{5} = \frac{30+14+15}{35} = \frac{59}{35} = 1\frac{24}{35}$

(c) Missing value = ~~$\frac{21 \times 21}{21}$~~ ~~$\frac{447}{21}$~~ 21×21

$$= 441$$

~~Q. 3.~~ (a) Average height of

a family of 5 = 150

$$\text{Actual height} = 150 \times 5 = 750 \text{ cm}$$

Height of 4 members =

$$606 \text{ cm}$$

Height of the fifth member =

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

\therefore The height of the 5th member is

$$144 \text{ cm}$$

(b) Average of 5 numbers = 25

$$\text{Sum of 5 numbers} = 25 \times 5 = ~~75~~ 125$$

Average of another 5 numbers
 $= 35$

Sum of 5 numbers $= 35 \times 5 = 175$

Sum of 10 numbers $= 175 + 125 = 300$

Average of 10 numbers $= \frac{300}{10} = 30$

\therefore The average of 10 numbers is
30.

(c) Amount of money in an
average Mimi's father earns
in an week $= ₹ 9800$

Actual money Mimi's father earns
in an week $= 9800 \times 7 = \underline{\underline{68,600}}$

Amount of money he earns in

52 weeks = 2,37,200

(d) Age of Sonali = 21 ys 10 mths =

$$22 \times 12 + 10 = 142 \text{ mths}$$

Age of Vandana = 12 years

$$= 12 \times 12 = 144 \text{ mths}$$

Age of Rohit = 12 ys 7 mths

$$= 12 \times 12 + 7 = 151 \text{ mths}$$

Age of Shweta = 27 ys 6 mths

$$= 138 \text{ mths}$$

Age of Vaibhava = 13 ys = 13 \times 12

$$= 156 \text{ mths}$$

Age of Manuk = 12 ys = 12 \times 12 = 144 mths

Age of Zakir = 11 ys 11 mths = 11 \times 12 + 11

< 193 mths

(*) Age of Anis = 13 yrs 2 mths =

$$13 \times 12 + 2 = 158 \text{ mths}$$

$$\text{Average age} = \frac{158 + 142 + 144 + 151 + 138 + 156 + 144 + 143}{8}$$

$$= \frac{1176}{8} = 147 \text{ mths} = 12 \text{ years } 3 \text{ mths}$$

∴ The average age of 8 children

= 12 yrs 3 mths

(ii) Weight of Donali = 33 kg

Weight of Vandana = 34 kg

Weight of Japir = 36 kg

Weight of Rohit = 38 kg

Weight of Manik = 32 kg

Weight of Shweta = 33 kg

Weight of Vaibhav = 36 kg

Weight of Krish = 38 kg

Average ~~is~~ weight = $\frac{38 + 36 + 30 + 38 + 34 + 33 + 33 + 30}{8}$

$$= \frac{140}{4} = \frac{140 \times 5}{4 \times 2} = \frac{70 \times 5}{2} = 35.0 \text{ kg}$$

(c) Average $\frac{11.35 + 12.65 + 12.00 + 7.25 + 14.85 + 15.55}{6}$

$$= \frac{72.85}{6} = \frac{253}{300} \quad \text{or} \quad \frac{253}{300}$$