

ch-11

# Average

SCHOLAR

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1) Fill in the blanks →

- (a) The mean value of a set of values is the sum of the values ~~divided~~ divided by the number of values in the set.
- (b) The average is a number which is roughly between the smallest and the biggest number or quantity.
- (c) The average give us an idea about the general value of a group.
- (d) The average is the arithmetical, mean value of the number given values.
- (e)  $\text{sum of the values} = \text{average} \times \frac{\text{no. of given quantities}}{\text{quantities}}$ .

2. DO as directed →

(a) 1<sup>st</sup> five prime numbers = 2, 3, 5, 7, 11

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

(b) 14g, 16g, 36g, 42g

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

(c) ~~108~~ Solution

i) No. of item = 15 ii) The total value of item is = 105

$$\text{Ans) Average} = \frac{105}{15} = 7$$

(d)  $\frac{6}{7}$ ,  $\frac{2}{5}$ ,  $\frac{11}{7}$

$$\text{Ans) } \frac{6}{7} + \frac{2}{5} + \frac{11}{7}$$

$$\text{Average} = \frac{30+14+55}{35} = \frac{99}{35} \div 3$$

$$= 33$$

$$= \frac{99}{35} \times \frac{1}{3} = \frac{33}{35}$$

(c)

(ii) Solution

No. of item are = 21

sum of the items is = 441.

Average is = 21

Average =  $21 \times 21 = \underline{441}$ .

3) solve:-

(a) Average height of a family of five is = 150 cm  
if the height

sum of height of five members =

 $150 \text{ cm} \times 5 = 750 \text{ cm}$ .1<sup>st</sup> height of family members = 153 cm.2<sup>nd</sup> height of family members = 150 cm.3<sup>rd</sup> height of family members = 151 cm.4<sup>th</sup> height of family members = 152 cm.

sum of the four family members heights =

$$153 \text{ cm} + 150 \text{ cm} + 151 \text{ cm} + 152 \text{ cm} =$$

$$= 606 \text{ cm}$$

$$\text{height of fifth member} = 750 \text{ cm} - 606 \text{ cm}$$

$$= 144 \text{ cm.}$$

(b) Solution:

$$\text{Average of 5 numbers} = 25$$

$$\text{sum of the 5 numbers} = 25 \times 5 = 125$$

$$\text{Average of another 5 numbers is} = 35$$

$$\text{sum of the another 5 numbers} = 35 \times 5 = 175$$

$$\text{sum Total numbers} = 125 + 175 = 300$$

The average of the 10 numbers is

$$= 300 \div 10$$

$$= \frac{300}{10} = 30$$

(c) Solution :-

Miri's father earns on average on week ₹9800

~~he earn ₹~~

he earn in 52 weeks =  $9800 \times 52 = \cancel{₹509}$

~~₹~~ soluti

= ₹5,09,600

(d) solution :-

Sonail = 11 years 10 months

=  $11 \times 12 + 10 = 142$  months

Vandana = 12 years

=  $12 \times 12 = 144$  months

Rohit = 12 years 7 months

=  $12 \times 12 + 7 = 151$  months

Shweta = 11 years 6 months

=  $11 \times 12 + 6 = 138$  months

$$\text{Vaibhav} = 13 \text{ years}$$

$$= 13 \times 12 = 156 \text{ months}$$

$$\text{Manik} = 12 \text{ years}$$

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

$$\text{Zakir} = 11 \text{ years } 11 \text{ months}$$

$$= 11 \times 12 + 11 = 143 \text{ months}$$

$$\text{Chris} = 13 \text{ years } 2 \text{ months}$$

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

$$\text{Total age of 8 students} = 1176 \text{ months}$$

$$\text{Average age} = \frac{1176}{8} = 147 \text{ months}$$

$$= 12 \text{ years } 3 \text{ months}$$

$$\text{Total weight of 8 students} =$$

$$33 \text{ kg} + 34 \text{ kg} + 38 \text{ kg} + 33 \text{ kg} + 36 \text{ kg} +$$

$$32 \text{ kg} + 36 \text{ kg} + 38 \text{ kg} = 280 \text{ kg}$$

$$\text{Average weight} = \frac{280}{8} = 35 \text{ kg}$$

(c) solution :-

Total of the quantities given =

$$11.35 + 12.65 + 11 + 7.25 + 14.85 + 15.55 \\ = 72.65$$

The number of quantities is given = 6

$$\text{Average} = \frac{72.65}{6} = 12.1083$$