

Cal
9/11/21

Ex. 11 (A)

1. Find the average

a) 50, 41, 47, 48, 40, 44

Ans Average;

$$\frac{50 + 41 + 47 + 48 + 40 + 44}{6}$$

$$\frac{270}{6} = 45$$

b) 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

$$\text{Ans } \frac{10 + 20 + 30 + 40 + 50 + 60 + 70 + 80 + 90 + 100}{10}$$

$$\frac{550}{10} = 55$$

c) 35, 42, 31, 16, 34, ~~20~~ 27, 53

Ans $\frac{35 + 42 + 31 + 16 + 34 + 27 + 53}{7}$

$\frac{232}{7} = 33$

d) 29, 21, 26, 25, 18, 20, 27, 23

$\frac{29 + 21 + 26 + 25 + 18 + 20 + 27 + 23}{8}$

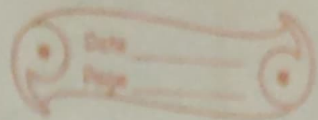
$\frac{189}{8} = 23$

e) $\frac{3}{8}, 1\frac{1}{4}, 2\frac{5}{6}, 4\frac{1}{2}, 6\frac{4}{3}$

$\therefore \text{LCM} = 24$

$= \frac{9 + 30 + 68 + 108 + 176}{24} = \frac{391}{24}$

$= \frac{391}{24} \div \frac{5}{1} = \frac{391}{24} \times \frac{1}{5} = \frac{391}{120}$



~~2 Ans~~ $28.5 + 30.25 + 32.9 + 31.6 + 29 +$

2 Ans $\frac{28.5 + 30.25 + 32.9 + 31.6 + 29 + 30.25}{6}$

$$= \frac{177}{6} \div 6 = \frac{177}{6} \times \frac{1}{6} = \frac{177}{36}$$

∴ Average rainfall of Jamsedhpur - ~~1.77~~ 1.77 mtr

3 Ans $\frac{8 + 10 + 12 + 14 + 16 + 18 + 20 + 22}{8}$

$$= \frac{111}{8} \div 8 = \frac{111}{8} \times \frac{1}{8} = \frac{111}{64}$$

~~4 Ans~~ ~~11, 13, 15, 17, 19, 21~~

4 Ans $\frac{11 + 13 + 15 + 17 + 19 + 21 + 23 + 25 + 27 + 29}{10}$

$$\frac{200}{10} \div 10 = \frac{200}{10} \times \frac{1}{10}$$

$$\frac{20}{10} = 2$$

$$5^{\text{th}} \text{ Ans } \frac{99 + 109 + 107 + 120 + 113}{5}$$

$$= \frac{545}{5} = 109 \text{ months}$$

$$6^{\text{th}} \text{ Ans } 121 + 130 + 128 + 131 + 130 = 640$$

$$\frac{640}{5} = \frac{640}{5} \times \frac{3}{1} = \frac{640}{5} \times \frac{1}{5}$$

$$= 128 \text{ cms}$$

~~5th Ans $34 + 42 + 54 + 76 + 82$~~

$$7^{\text{th}} \text{ Ans } \frac{25.5 + 28 + 27.8 + 30 + 29.6}{5} = 140.9$$

$$\frac{140.9}{5} = 28.18 \text{ kg}$$

6 Ans $39 + 42 + 76 + 82 + 26 + 78 + 67 + 62 + 59 + 1$
 $+ 25 + 39 + 42 + 66 + 78 + 80 + 92 + 26 + 45$
 $\therefore 520$

$$\frac{1080}{20} = 54$$

Ans 9

$$\begin{array}{r|l} 2 & 12, 6, 4, 2, 12, 6 \\ 3 & 6, 3, 2, 1, 6, 3 \\ 2 & 2, 1, 2, 2, 1 \end{array}$$

Ans 9

$$\begin{array}{r|l} 5 & 5, 10, 2, 5, 10, 2 \\ 2 & 1, 2, 2, 1, 2, 1 \end{array}$$

Ans 2

7 Ans Average attendance

Q.1. $\left(\overset{f}{\text{Q.1.}} \right) \frac{2^3}{5} + \frac{3^3}{10} + 3\frac{1}{2} + \frac{2}{5} + \frac{9}{10} + 1\frac{1}{2}$

$$= \frac{\frac{13}{5} + \frac{33}{10} + \frac{7}{2} + \frac{2}{5} + \frac{9}{10} + \frac{3}{2}}{6}$$

$$= \frac{26 + 33 + 35 + 4 + 9 + 15}{6}$$

$$= \frac{61}{10} \times \frac{1}{3} = \frac{61}{30} = 2 \frac{1}{30}$$

$$(g) \quad \frac{7}{12} + \frac{5}{6} + \frac{17}{6} + \frac{23}{4} + \frac{1}{2} + \frac{5}{12} + \frac{1}{6}$$

$$= \frac{7}{12} + \frac{34}{12} + \frac{69}{12} + \frac{23}{4} + \frac{6}{2} + \frac{5}{12} + \frac{1}{6}$$

$$= \frac{7 + 34 + 69 + 6 + 5 + 2}{12}$$

$$= \frac{123}{12} \div \frac{6}{1} = \frac{123}{12} \times \frac{1}{2} = \frac{41}{24}$$

$$= 1 \frac{17}{24} \text{ Ans.}$$

$$b) \quad \frac{1}{9} + \frac{3}{9} + \frac{1}{2} + \frac{1}{6} + \frac{3}{8}$$

$$= \frac{46 + 18 + 12 + 4 + 9}{29} = \frac{89}{29}$$

$$= \frac{49}{29} \div \frac{5}{1} = \frac{49}{29} \times \frac{1}{5}$$

$$= \frac{49}{145} \quad \text{Ans.}$$

Q 120

QW

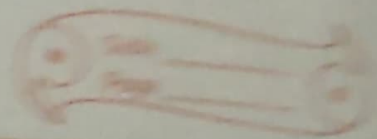
NO. 6 a No. of students of ~~the class~~ = 20

Marks scored by the students =

39, 42, 51, 76, 82, 26, 78, 67, 62,
54, 17, 25, 39, 42, 66, 78, 89, 22,
26, 24

Average:

$$\frac{1080}{20} = \frac{1080}{20} = 54$$



- b. 9 students scored more than average
- c. 9 students scored less than average
- d. 2 students have scored equal to average.