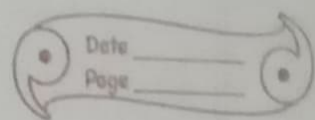


CW
9/11/21

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

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) 24, 21, 26, 25, 18, 20, 27, 23

$\frac{24 + 21 + 26 + 25 + 18 + 20 + 27 + 23}{8}$

$\frac{184}{8} = 23$

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

= LCM = 24

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

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

~~2 Ans~~ $28.5 + 30.25 + 32.4 + 31.6 + 29 +$

2 Ans $\frac{28.5 + 30.25 + 32.4 + 31.6 + 29 + 30.25}{6}$

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

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

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

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

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

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

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

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

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

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

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

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

$$= 128 \text{ cms}$$

~~$$5^{th} \text{ Ans } 34 + 42 + 54 + 76 + 82 +$$~~

$$7^{th} \text{ Ans } \frac{25.6 + 28 + 27.8 + 30 + 29.6}{5} = 140$$

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

6 Ans $34 + 42 + 57 + 76 + 82 + 26 + 78 + 67 + 62 + 59 + 1$
 $+ 25 + 39 + 42 + 66 + 78 + 80 + 92 + 26 + 45$
 $\div 20$

$$\frac{1080}{20} = \frac{54}{1}$$

Days 9

$$\begin{array}{r} 2 \overline{) 12, 6, 4, 2, 12, 6} \\ 3 \overline{) 6, 3, 2, 1, 6, 3} \\ 2, 1, 2, 2, 1 \end{array}$$

Days 9

$$5 \overline{) 5, 10, 2, 5, 10, 2}$$

Days 2

$$2 \overline{) 1, 2, 2, 1, 2, 1}$$

7 Ans Average attendance

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

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

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

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

$$(g) \frac{7}{12} + \frac{5}{6} + \frac{17}{6} + \frac{23}{4} + \frac{1}{2} + \frac{5}{12} + \frac{11}{6}$$

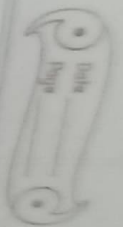
$$= \frac{7}{12} + \frac{34}{6} + \frac{69}{6} + \frac{6}{2} + \frac{5}{12} + \frac{11}{6}$$

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

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

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

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



$$= \frac{46 + 18 + 12 + 9 + 9}{5} = 24$$

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

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

Q^W
 No. 62 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:

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

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

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

7. The ^{weekly} average weekly attendance of
 $V_A =$

$$\frac{48 + 50 + 52 + 46 + 44}{5} = 48$$

= 48

The average weekly attendance of

$V_B =$

$$\frac{49 + 51 + 48 + 45 + 47}{5} = 48$$

The average weekly attendance of $V_C =$

$$\frac{45 + 47 + 49 + 48 + 50}{5} = 47.8$$

$$\frac{\cancel{240} - 98}{6} = \frac{240}{6} = 48$$

a. ~~The~~ All the classes have ~~the same~~ Same attendance.
Daily:

Monday:

$$\cancel{140} \quad 48 + 49 + 50 = \frac{147}{3} = 49$$

= 49

$$\frac{\cancel{49}}{3} \times \frac{1}{3} = \frac{469}{6} = 8 \frac{1}{6}$$

Thursday:

$$50 + 51 + 47 = \frac{148}{3}$$

$$= \frac{148}{3} \times \frac{1}{3} = \frac{148}{9} = 49 \frac{2}{9}$$

The Average attendance of three classes on wednesday =

$$\frac{52 + 48 + 45}{3} = \frac{145}{3} = 48 \frac{1}{3}$$

The Average attendance of 3 classes on Thursday =

$$\frac{46 + 45 + 48}{3} = \frac{139}{3} = 46.33$$

or

The Average attendance of 3 classes on Friday =

$$\frac{44 + 47 + 50}{3} = \frac{141}{3} = 47$$

i. on Tuesday the average attendance was best.

ii. on Thursday the average attendance of all the classes was the worst.

8.

Name	Eng	Hin	Math	Sci	Hist	Art
Ameera	63	58	85	68	70	65
Balbir	50	37	91	40	50	46
Charan	82	48	91	88	74	73
Dilraj	60	58	62	60	65	67
Ela	48	51	77	50	81	47
Fatima	75	48	70	66	80	75

a. The average marks in English =

$$\frac{63 + 50 + 82 + 60 + 48 + 75}{6}$$

$$= \frac{378}{6} = 63$$

Rough
195
+183
378

The average marks in Hindi =

$$\frac{58 + 37 + 48 + 58 + 51 + 48}{6}$$

$$= \frac{300}{6} = 50$$

63
6378
-361
18
-18
0

The average marks in math =



$$= \frac{85 + 141 + 91 + 162 + 47 + 70}{6} = \frac{396}{6} = 66$$

The Average marks in Science =

$$\frac{68 + 40 + 88 + 60 + 80 + 66}{6}$$

$$= \frac{372}{6} = 62$$

The average marks in History =

$$\frac{70 + 50 + 74 + 65 + 51 + 80}{6} = \frac{390}{6} = 65$$

The average marks in Geo =

$$\frac{64 + 46 + 73 + 67 + 47 + 75}{6} = \frac{372}{6}$$

$$= 62$$

b Average marks of Amar =

$$\frac{63 + 58 + 85 + 68 + 70 + 69}{6} = \frac{473}{6}$$

$$= 78$$

Average mark of Balbir =

$$\frac{50 + 37 + 41 + 40 + 50 + 46}{6} = \frac{264}{6}$$

$$= 44$$

Average mark of Chandert =

$$\frac{52 + 45 + 91 + 88 + 74 + 73}{6} = \frac{456}{6} = 76$$

Average mark of Dilraj =

$$\frac{60 + 58 + 62 + 60 + 65 + 67}{6} = \frac{372}{6} = 62$$

Average mark of Ela =

$$\frac{58 + 59 + 47 + 50 + 61 + 47}{6} = \frac{322}{6} = 53$$

Average mark of Fatima =

$$\frac{75 + 48 + 70 + 66 + 80 + 75}{6} = \frac{414}{6} = 69$$

c) Math has the highest average marks

d) Hindi has the lowest average marks

Q. 9.

~~Average marks in 6 subjects =~~
 Total marks scored = $68 \times 6 = 390$
 A/q, total marks scored in 5 subjects = 315

Marks scored in Geography:

$$\begin{array}{r} \text{---} 390 \\ \text{---} 315 \\ \hline 75 \end{array}$$

So, she scored 75 in Geo.

10. solution:

Avg. weight of 8 children = 25.6 kg
 Total weight of 8 children = 204.8 kg

Avg. weight of 7 children = 26.2 kg
 Total weight of 7 children = 183.4 kg

Total weight of 15 children

$$= 204.8 + 183.4 = \frac{388.2}{15} = 25.88 \text{ kg}$$

11. solution :

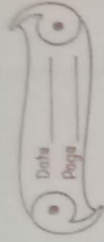
The Avg. Age of 10 children = 117 months

The Avg. Age of 9 children = 107 months

Total age of 10 children = 1170 months

Total age of 9 children = 963 months

Age of the tenth child = $1170 - 963$
17.25 years



12) The Average of the first 9 numbers = $\frac{21}{21}$

\therefore The sum of 9 numbers = $21 \times 9 = 189$

The Average of the last 3 numbers = $\frac{17}{17}$

\therefore The sum of 3 numbers = $17 \times 3 = 51$

So the average of 12 numbers =

$$\frac{189 + 51}{12} = \frac{240}{12} = 20$$

Ans.