

36.(2) Let Required speed = x
 $\therefore \frac{9+1.5x}{\frac{9}{6}+1.5} = 9$

$$9 + 1.5x = \frac{81}{6} + 13.5$$

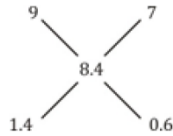
$$9 + 1.5x = 27$$

$$x = \frac{18}{3} \times 2$$

$$x = 12 \text{ kmph}$$

37.(4) Total CP = 32
 Total SP = $12 + 6 + 2 = 20$
 \therefore Loss percentage = $\frac{12}{32} \times 100 = 37.5\%$

38.(2) Mean price = $\frac{10}{110} \times 9.24 = 10 \times 0.84 = 8.4$.



$$\text{Ratio} = \frac{1.4}{0.6} = \frac{7}{3}$$

Therefore required quantity = $\frac{27}{3} \times 7 = 63 \text{ kg}$.

39.(1) Let Required quantity = x
 $\frac{21}{9+x} = \frac{3}{2}$
 $42 = 27 + 3x$
 $3x = 15$
 $x = 5$

40.(1) Ratio of their work = $\frac{1}{10} : \frac{1}{15}$
 $= 3 : 2$

$$\therefore \text{Required wages} = \frac{3}{5} \times 50 = 30$$

41.(3) The series is $\times 3 + 1, \times 3 + 2, \times 3 + 4, \times 3 + 8$
 $\therefore ? = 100 \times 3 + 8 = 308$

42.(5) The series is $\times 1 - 2, \times 2 - 2, \times 3 - 2, \times 4 - 2, \dots$
 $\therefore ? = 4 \times 3 - 2 = 10$.

43.(2) The series is $\times 1 + 1^2, \times 2 + 2^2, \times 3 + 3^2, \times 4 + 4^2, \dots$
 Therefore $? = 6 \times 2 + 2^2 = 16$.

44.(1) The series is based on increasing previous number by 4 and 2 alternatively.
 i.e. $+7, +11, +13, +17$
 $\therefore ? = 21 + 13 = 34$.

45.(4) The series is $\times 2 + 1, \times 2 + 3, \times 2 + 5, \times 2 + 7$
 $\therefore ? = 11 \times 2 + 3 = 25$.

46.(2) Ratio = $\frac{700+600+720}{750+560+750} = \frac{2020}{2060} = 101:103$.

47.(1) Required student = $\frac{70}{100} \times 4860 = 3402$.

48.(5) Required average = $\frac{60}{100} \times \frac{4720}{7} \approx 405$.

49.(4) Required % = $\frac{640}{4340} \times 100 = 14.75\%$.

50.(3) Required difference = $5100 - 5090 = 10$

51.(1) In 5 days work done by A = $\frac{5}{20} = \frac{1}{4}$.

$$\text{Remaining work} = 1 - \frac{1}{4} = \frac{3}{4}$$

Let work done by B = x days

$$\therefore \frac{3}{4} \times x = 10$$

$$x = \frac{40}{3}$$

$$\therefore \text{Required days} = \frac{1}{\frac{1}{20} + \frac{3}{40}} = \frac{1}{\frac{1}{40}} = \frac{40}{5} = 8 \text{ days}$$

52.(3) The sum of last three numbers

$$(20 \times 8) - \left[(2 \times 15.5) + 3 \times \frac{64}{3} \right]$$

$$= 160 - 31 - 64 = 65.$$

Let 6th number = x

Therefore, 7th number = $x + 4$, 8th number = $x + 7$

$$\therefore x + (x + 4) + (x + 7) = 65 \Rightarrow 3x = 54 \Rightarrow x = 18.$$

Therefore, 8th number = $18 + 7 = 25$.

53.(1) Let average age of new students = x yr.

$$15.20 = \frac{40 \times 15 + 10 \times x}{40 + 10}$$

$$15.20 = \frac{600 + 10x}{50}$$

$$760 = 600 + 10x$$

$$10x = 160$$

$$x = 16 \text{ yr.}$$

54.(5) Let sum = x

$$x \times \frac{15}{12} \times 7.5 \times \frac{1}{100} - x \times 12.5 \times \frac{8}{12} \times \frac{1}{100} = 3250$$

$$\frac{3}{32}x - \frac{x}{12} = 3250$$

$$\frac{3x - 8x}{96} = 3250$$

$$x = 96 \times 3250$$

$$x = 312000$$

55.(1) Let sums be x, y and z .

$$\therefore \frac{x \times 6 \times 10}{100} = \frac{y \times 10 \times 12}{100} = \frac{z \times 12 \times 15}{100}$$

$$x \times \frac{3}{5} = y \times \frac{6}{5} = z \times \frac{9}{5}$$

$$3x = 6y = 9z$$

$$\therefore \frac{x}{y} = \frac{2}{1}, \frac{y}{z} = \frac{3}{2}$$

$$x : y : z = 6 : 3 : 2$$

56.(3) $5! = 120$

57.(1) Let breadth = x cm

$$\therefore \text{length} = (x + 1) \text{ cm}$$

$$\therefore \text{diagonal} = 29$$

$$\sqrt{x^2 + (x + 1)^2} = 29$$

$$\sqrt{x^2 + x^2 + 1 + 2x} = 29$$

$$2x^2 + 2x + 1 = 841$$

$$2x^2 + 2x - 840 = 0$$

$$x^2 + x - 420 = 0$$

$$\therefore x = -21, +20 \quad [x \neq -21]$$

$$\therefore \text{Area} = 20 \times 21 = 420 \text{ cm}^2$$

58.(2) Area of four walls = $2(\ell + b) \times h$

$$= 2(16 + 7) \times 8$$

$$= 46 \times 8$$

$$= 368 \text{ m}^2$$

$$\therefore \text{After excluding doors and window,}$$

$$\text{Area} = (368 - 65) \text{ m}^2 = 303 \text{ m}^2$$

$$\therefore \text{Required cost} = 7.5 \times 303 = 2272.5$$

59.(1) Let profit % made by 2nd = $x\%$

$$\therefore 38 = 20 + x + \frac{20x}{100}$$

$$18 = x + \frac{x}{5}$$

$$18 = \frac{5x + x}{5}$$

$$6x = 90$$

$$x = 15\%$$

60.(3) Let their salaries be $5x, 2x$ and $7x$

$$\therefore 5x = 3600$$

$$x = 720$$

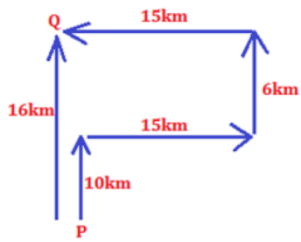
$$\therefore \text{Required amount} = 9x = 9 \times 720 = 6480$$

61.(5) 62.(3)

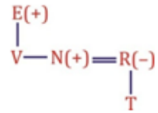
63.(5) 64.(2)

65.(4)

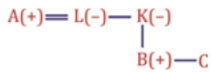
66-67.



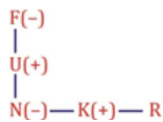
66.(1)
68.(3)



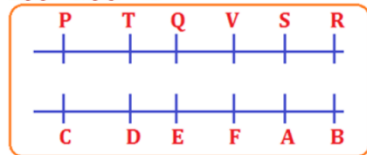
69.(1)



70.(1)



71-75.



71.(3)

72.(5)

73.(2)

74.(1)

75.(5)

76-80.

Days	Plays
Mon	A
Tue	F
Wed	B
Thu	D
Fri	G
Sat	C
Sun	E

76.(4)

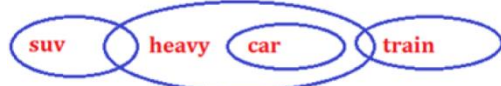
77.(1)

78.(5)

79.(5)

80.(3)

81.(5)



82.(3)



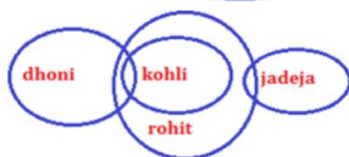
83.(2)



84.(4)



85.(3)



86-90.

Watch	Day
A	Saturday
B	Friday
C	Wednesday
D	Thursday
E	Monday
F	Tuesday

86.(3)

87.(2)

88.(4)

89.(3)

90.(5)

91-95.

wednesday - to
thursday - pi
saturday - je
friday - vo
Monday - zo
tuesday - ab
january - su
sunday - ka
february/ march - do/yo

91.(3)

92.(1)

93.(5)

94.(2)

95.(5)

96.(5)

I. $C < K$ (True)

II. $B \leq D$ (True)

97.(2)

I. $A \geq J$ (False)

II. $K > B$ (True)

98.(1)

I. $B > N$ (True)

II. $L < K$ (False)

99.(1)

I. $L > N$ (True)

II. $L = N$ (False)

100.(4)

I. $C < F$ (False)

II. $C = F$ (False)

Either I or II are true.