

I. Choose the correct answer:

(15x1=15)

- 1.Rs. 84
- 2.Rs. 210
- 3.80
- 4.6
- 5.22
6. $b \times h$ sq.units
7. 4a
8. $\frac{1}{2} \times d_1 \times d_2$
- 9.152sq.cm
- 10.90°
11. $\frac{1}{2} \times h(a+b)$
- 12.45 sq.cm
13. 12 sq.cm
- 14.90 cm^2
- 15.72 pencils

II. Answer any 10 of the following:

(10x3=30)

16. $b = 11\text{cm}$, $h = 3\text{cm}$

Area of parallelogram = $b \times h$ sq.units

$$= 11 \times 3$$

$$= 33\text{cm}^2$$

17. Area of parallelogram = $b \times h$ squnits.

$$56 = 8 \times h$$

$$H = \frac{56}{8} = 7\text{cm}$$

18. Area of parallelogram = $b \times h$ squnits.

$$735 = 21 \times h$$

$$H = \frac{735}{21}$$

$$H = 35\text{cm}$$

19. Area of Rhombus = $b \times h$

$$= 17 \times 8$$

$$= 136\text{cm}^2$$

20. Area of Rhombus = $b \times h$

$$96 = 24 \times h$$

$$h = \frac{96}{24}$$

$$h = 4\text{cm}$$

21. Area of Rhombus = $\frac{1}{2} \times d_1 \times d_2$

$$8$$

$$d_1 = 16\text{cm}, d_2 = \frac{1}{2} \times 16 \times 8$$

$$= 8 \times 8$$

$$= 64\text{cm}^2$$

22. Area of trapezium = $\frac{1}{2} \times h(a+b)$

$$= \frac{1}{2} \times 10(12+20)$$

$$= 5(32)$$

$$= 90\text{cm}^2$$

23. Area of trapezium = $\frac{1}{2} \times h(a+b)$

$$49 = \frac{1}{2} \times h(13+28)$$

$$49 = \frac{1}{2} \times h(41)$$

$$h = \frac{492 \times 2}{4}$$

$$h = 12 \times 2$$

$$H = 24 \text{ cm}$$

24. No. of banana	cost
12	20
48	?

Let x be the cost, as no of banana is in creases, cost also increase.

∴ It is direct proportion.

$$\frac{x_1}{y_1} = \frac{x_2}{y_2}$$

$$\frac{12}{48} = \frac{20}{x}$$

$$12x = 48 \times 20$$

$$X = \frac{48 \times 20}{12}$$

$$= 4 \times 20$$

$$X = 80$$

25. 30 men reap afield = 15 days.

$$\text{Amen reap of field in one day} = \frac{15}{30}$$

$$= \frac{1}{2} \times 20$$

$$= 10 \text{ days .}$$

26. Pump	Time
6	90
(6-1)=5	?

Let x be the time taken, as pump decreases, time will increases.

∴ It id inversevaraiton:-

$$x_1 \times xy_1 = x_2 \times y_2$$

$$6 \times 90 = 5 \times x$$

$$X = \frac{6 \times 90}{5}$$

$$X = 6 \times 18$$

$$X = 108 \text{ (1hr = 60 minutes)}$$

$$X = 1 \text{ hr} = 48 \text{ minutes}$$

27. No. of machines	Days
36	54
?	81

Let x be the no. of machine as machine reduces, days will increase.

It is inverse variation.

$$x_1 \times y_1 = x_2 \times y_2$$

$$36 \times 54 = x \times 81$$

$$X = \frac{36 \times 54}{81}$$

$$X = 4 \times 6$$

$$X = 24 \text{ days}$$

28. (a) No. of worker	No. of days
60	7
42	x

Let x be the number of days the decrease in worker and increase in number days.

It is inverse proportion

$$x_1 \times y_1 = x_2 \times y_2$$

$$60 \times 7 = 42 \times x$$

$$10$$

$$X = \frac{60 \times 7}{42}$$

$$X = 10 \text{ days}$$

(b) Area of parallelogram = bxhsq.units.

$$368 = 23xh$$

$$H = \frac{368}{23}$$

$$H = 16 \text{ cm}$$

III. h=6cm, a=81cm, b=64cm.

$$\text{Area of trapezium} = \frac{1}{2} \times h(a+b)$$

$$= 3(145)$$

$$= 435 \text{ sq. cm}$$

$$\text{Cost of painting 1 sq. cm} = \text{Rs. } 2$$

$$\begin{aligned} \text{Cost of painting 435 sq. cm} &= 435 \times 2 \\ &= \text{Rs. } 870 \end{aligned}$$

$$30. \text{ Area of rhombus} = \frac{1}{2} \times d_1 \times d_2$$

$$100 = \frac{1}{2} \times 8 \times d_2$$

$$100 = 4d_2$$

$$d_2 = \frac{100}{4}$$

$$d_2 = 25$$

$$31. b = 8 + 14 = 22 \text{ cm}$$

$$H = 14 \text{ cm}$$

$$\begin{aligned} \text{Area of parallelogram} &= bxh \\ &= 22 \times 14 \\ &= 308 \text{ m}^2 \end{aligned}$$

$$\text{Cost of leveling } 1 \text{ m}^2 = \text{Rs. } 15$$

$$\begin{aligned} \text{Cost of leveling } 308 \text{ m}^2 &= 308 \times 15 \\ &= \text{Rs. } 4620 \end{aligned}$$

$$32. \text{ Area of parallelogram} = bxh$$

$$221 = bx17$$

$$b = \frac{221}{17}$$

$$b = 13 \text{ cm}$$

33. A moptor bike requires 2 liters = 100 kilometer.

$$\begin{aligned} \text{A motorbike require 1 liter of petrol} &= \frac{100}{2} \\ &= 50 \text{ km} \end{aligned}$$

$$\begin{aligned} \text{Petrol required form 250 kilometer} &= \frac{250}{50} \\ &= 5 \text{ litres} \end{aligned}$$

34. No. of letter	No. of hopurs
738	6
?	9

Let x be the no. of letter

As no. of hour increases, no. of letter also increases.

∴ It is direct proportion

$$\frac{x_1}{y_1} = \frac{x_2}{y_2}$$

$$\frac{738}{6} = \frac{x}{9}$$

$$6x = 738 \times 9$$

$$369 \times 3$$

$$X = \frac{738 \times 9}{6}$$

∴ 1107 letters will be sorted in 9 hours

35. No. of students no. of day

40

30

(40+40)=80

?

Let x be the no. of days.

As no. of students increases, No. of days decreases.

∴ It is inverse proportion

$$x_1 \times y_1 = x_2 \times y_2$$

$$40 \times 30 = 80 \times x$$

$$X = \frac{40 \times 30}{80}$$

$$X = 15 \text{ days}$$

36.(i) $\frac{1}{2} \times h(a+b)$ units

(ii) $L \times b$ sq. units

(iii) $\frac{1}{2} \times d_1 \times d_2$ sq. units

(iv) $b \times h$ sq. units

$$(V) \frac{x_1}{y_1} = \frac{x_2}{y_2}$$

37. (a) Area of rhombus = 60

$$d_1 = 8$$

$$d_2 = ?$$

$$\text{Area} = \frac{1}{2} \times d_1 \times d_2$$

$$60 = \frac{1}{2} \times 8 \times d_2$$

$$4d_2 = 60$$

$$d_2 = \frac{60}{4} = 15$$

$$d_2 = 15 \text{ cm}$$

b) cost of 2 note book = Rs. 24

$$\text{cost of 1 note book} = \frac{24}{2}$$

$$\text{Rs. 12}$$

Cost of 9 note book = 12×9

$$= \text{Rs. 108.}$$