

Percentage प्रतिशतता

1. X Y
120 100
Y → $\frac{550}{220} \times 100$

Y = Rs 250

2. $\frac{400 \times 7}{100} = 28$

Total % → $6400 \frac{\times 9}{100} = 576$

$$\frac{604}{68} = \frac{151}{17}$$

$$= 8 \frac{15}{17} \%$$

3. 8 साल से बड़े छात्र = $\frac{2}{3} \times 48 = 32$

8 साल व उससे बड़े छात्र = $32 + 48 = 80$

8 साल से छोटे छात्र = $\frac{80 \times 20}{100} = 16$

कुल छात्र = $80 + 16 = 96$

4. $\frac{y \times x}{100} = 100$

$xy = 10000$

$\frac{y \times z}{100} = 200$

$Yz = 20000$

$Yz = 2 \times 10000$

$Yz = 2 \times xy$

$Z = 2x$

5. $x - \frac{6x}{100} = P \times 5$ x Let Multiply by P

$\frac{94x}{100} = Px$

$P = 0.94$

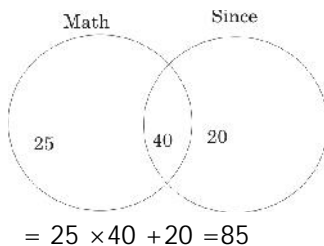
6. $AX = BY$

$B = \frac{AX}{y}$

Z% of B = $BZ = \frac{A \times y}{z}$

$= \frac{xy}{z} \%$ of A

7.



Fail = $100 - 85 = 15$

Total = $\frac{90}{15} \times 100 = 600$

8. Total Play students = $450 - 50 = 400$
Cricket + hockey = $325 + 175 = 500$
Both Plays = $500 - 400 = 100$

9. (*)

10. $\frac{32}{80} \times 100 = 40\text{kg}$

अतः 321 kg तो मिलेगा ही किन्तु यह value 80% की होगी

[\because 32 kg, 80% की value,
 \therefore सूर्यफल में भी 20 प्रतिशत पानी है]

11. $4\% = \frac{4}{100} = \frac{1}{25}$

$\frac{25}{25} \quad \frac{24}{24} \quad \text{Less}$
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P+ population = $\frac{62500 \times 24 \times 24}{25 \times 25}$
 $= 100 \times 24 \times 24 = 57600$

12. $20\% = \frac{1}{5}$

P deprution

$\frac{5}{5} \quad \frac{4}{4}$

$\frac{5}{125} \quad \frac{4}{64}$

65

% decrease = $\frac{61}{125} \times 100$
 $= 12.2 \times 4$
 $= 48.8\%$

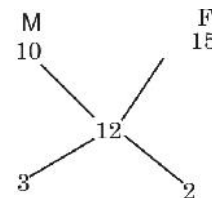
15. Actual inc = $4 - 0.5 = 3.5\%$

$\frac{200}{200} \quad \frac{207}{207}$
 $\frac{200}{200} \quad \frac{207}{207}$
 $\frac{200}{200} \quad \frac{207}{207}$

8000000 8869743

% = $\frac{869743 \times 100}{8000000} = 10.8\%$

16. Total % Inc = $\frac{600}{5000} \times 100 = 12\%$



Males = $\frac{5000}{5} \times 3 = 3000$

17. B C
60 100

40
 $\frac{40}{60} \times 100 = \frac{200}{3} = 66 \frac{2}{3} \%$

$$18. \frac{P \times 50}{100} = \frac{Q \times 25}{100}$$

$$2P = Q$$

Then

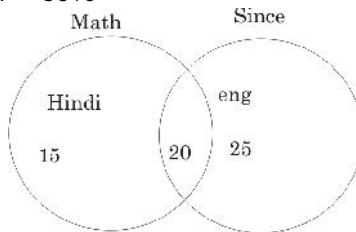
$$P = \frac{Q \times x}{100}$$

$$P = \frac{2P \times x}{100}$$

$$X = 50$$

19. (*)

20. Total Fail = 60%



$$\text{Both sub. Pass} = 100 - 60 = 40\%$$

21. Total cost

$$1000 + \frac{4000}{100} \times 98$$

$$= 1000 + 3920$$

$$= 4920$$

$$22. \frac{2.5}{25} \times 100 = 10\%$$

$$23. 15 \times \frac{7}{3} \times \frac{3}{1} \times \frac{5}{2} \times \frac{40}{100}$$

$$15 \times 7 = 105$$

24. 20% → 35

$$\text{Required No} \rightarrow \frac{35}{20} \times 100 \times \frac{4}{5}$$

$$= 140$$

25. Let total staff = 100

Female 40 Male 60

Married 70% → 28 50% - 30

Unmarried 12 30

Unmarried % = 42%

$$26. +20 - 20 + \frac{+20 \times (-21)}{100} = -4\%$$

$$27. 50x = 30x$$

$$x:y = 3:5$$

28. Copper Alliminum 2000 gm

600 gm 1400 gm

$$\text{Require Aluminum} = \frac{600}{20} \times 80 - 1400$$

$$= 2400 - 1400$$

$$= 1000 \text{ gm}$$

29. Boy Girls

30 20

Given exam 30% = 9 70 % = 14

$$\frac{\text{exam given}}{\text{not give}} = \frac{23}{27} = 23 : 27$$

30. माना X% Less करे तब

$$10 - x - \frac{10 \times x}{100} = 0$$

$$100 - 11x = 0$$

$$11x = 100$$

$$X = 9 \frac{1}{11} \%$$

31. Income Spend Saving

100 75 25
120 10% → 82.5 37.5

$$\% \text{ growth in saving} = \frac{125}{25} \times 100$$

$$= 50\%$$

$$32. \% \text{ inc} = 100 + 100 + \frac{100 \times 100}{100}$$

$$= 300\%$$

33. 36% - 225

$$100\% = \frac{225}{36} \times 100$$

$$= 625$$

$$34. 100 \frac{3}{4} = 100 \times \frac{3}{4} \times \frac{1}{100} + \frac{x}{100}$$

$$\frac{x}{100} = 75 - \frac{3}{4}$$

$$\frac{x}{100} = \frac{297}{4}$$

$$X = 297 \times 25$$

$$= 7425$$

35. माना कुल धन = 100

पुत्र पुत्री दानशाला शेष
50 30 16 4

$$\text{कुल धन} = \frac{16,000}{4} \times 100 = 4,00,000$$

$$37. \text{Total reduction} = -20 - 10 + \frac{(-22)(-19)}{100}$$

$$= -30 + 2$$

$$= -28 \%$$

39. I II III total

100 100 100 300

Given 60 80 210

III Sub. 210 - 140 = 70

PRACTICE SET

1. 30% → 72

$$100\% \rightarrow \frac{72}{30} \times 100$$

$$= 240$$

2. (A+B)+5 = (A-B) 25

$$3A + 3B = 5A - 5B$$

$$2A = 8B$$

$$A = 4B$$

$$A = 4 \text{ time of } B$$

$$400\%$$

$$3. 300 \times \frac{25}{100} \times \frac{20}{100} = 3 \times 5 = 15$$

$$4. \frac{25}{2} \times \frac{x}{100} = 150$$

$$X = 6 \times 2 \times 100 = 1200$$

$$5. \frac{1206 \times \frac{1}{3}}{134} \times 100\% = \frac{402}{134} \times 100 = 300\%$$

6.

X	Y
75	100
25	

$$\frac{25}{75} \times 100 = 33\frac{1}{3}\%$$

7.

X	Y
120	100
20	

$$\frac{20}{120} \times 100 = 16\frac{2}{3}\%$$

8.

A	B
125	100
25	

$$\frac{25}{125} \times 100 = 20\%$$

9.

A	B
100	80
20	

$$\frac{20}{80} \times 100 = 25\%$$

10.

A	B
100	110
10	

$$\frac{10}{110} \times 100 = 9\frac{1}{11}\%$$

11. $33\frac{1}{3} - 1200$

$$66\frac{2}{3} = \frac{1200}{33\frac{1}{3}} \times 66\frac{2}{3} = 2400$$

12.

C	A	B	A	
120	100	125	100	
A	B	C		
4	5			
	5	6		
4	:	5	:	6

$$C\% \text{ greater than A} = \frac{2}{4} \times 100 = 50\%$$

13.

A	B
110	100
10	

$$X = \frac{10}{110} \times 100 = 9\frac{1}{11}\%$$

15.

Ram	Shyam
225	200
10	

$$\frac{25}{225} \times 100 = \frac{100}{9} = 11\frac{1}{9}\%$$

16. $60A = 75B$
 $4A = 5B$
 $A : B = 5 : 4$

$$x = \frac{4}{5} \times 100 = 80$$

17.

A	B	B	C
140	100	80	100
A	B	C	
7	5	5	
4	4	5	
28		25	

$$A : C = 28 : 25$$

18. $10m = 20N$
 $m : n = 2 : 1$

19. खपत कमी $\frac{20}{120} \times 100 = \frac{100}{6}$

100	120
20	

कमी मूल खपत : मूल खपत

$$\frac{100}{6} : 100 = 1 : 6$$

20. $\frac{40 + 8}{50 - 10} = \frac{48}{40} = 6 : 5$

21. by option stor fraction

$$25 - \frac{25 \times 20}{100} = 5$$

$$25 - 20 = 5$$

(ii) Trick माना स. 100 x तब

$$100x - 20 = \frac{100 \times 20x}{100}$$

$$80x = 20 \Rightarrow x = \frac{1}{4}$$

$$\text{तब संख्या} = 100 \times \frac{1}{4} = 25$$

22. $y = \frac{125}{100} \times 110 = \frac{5 \times 110}{4}$

$$X = \frac{5 \times 110}{4 \times 100} \times 91 = \frac{5 \times 11 \times 9}{4} = 55 \times 2.25 = 123.75$$

23. $\frac{13}{2}A = \frac{17}{2}B$

$$13A = 17E$$

$$4 \rightarrow 1660$$

$$13 \rightarrow \frac{1660}{4} \times 13 = 5395$$

24. 90 by option

$$\frac{90 \times 40}{100} =$$

$$(ii) 40A = 60B \Rightarrow 2A = 3B$$

$$5 \rightarrow 150$$

$$3 \rightarrow \frac{150}{5} \times 3 = 90$$

$$30. 3 \frac{1}{3} = \frac{10}{3} \times \frac{1}{100} = \frac{10}{300}$$

$$30 \quad 31$$

$$30 \quad 31$$

$$30 \quad 31$$

Population after 3 years

$$= \frac{27000 \times 31 \times 31 \times 31}{30 \times 30 \times 30}$$

$$= 29791$$

$$31. 100 \quad 102$$

$$100 \quad 103$$

$$100 \quad 104$$

$$\frac{8,00,00,000 \times 51 \times 103 \times 52}{50 \times 100 \times 50}$$

$$= \frac{800 \times 51 \times 103 \times 52}{25}$$

$$= 32 \times 51 \times 103 \times 52$$

$$= 8740992$$

$$32. -40 - 40 + \frac{(-40) \times (-40)}{100}$$

$$-80 + 16 - 64, 64 \text{ decrease}$$

33. (*)

34. by option

Commission

$$= \frac{22500 \times 4}{100} + 500 = 900 + 500 = 1400$$

$$32500 - 1400 = 31100$$

(ii) Trice माना total seel = x तब

$$\frac{x \times 96}{100} - 100 \text{ [10,000 का 1% ज्यादा]} = 31,100$$

$$x \times \frac{24}{25} = 31,200$$

$$x = \frac{31,200 \times 25}{24}$$

$$= 1300 \times 25 = 32,500$$

$$35. \frac{15000 \times 12}{100} = 1800$$

$$13\% \text{ comm. Earn} = 7650 - 1800 = 5850$$

$$\text{Steel } \frac{5850}{13} \times 100 = 45,000$$

$$\text{Total sell} = 45,000 + 15,000 = 60,000$$

37. माना कुल 100 वोट है तब

Total No cast invalid wimer Not wine

$$100 \quad 10 \quad 90 \times \frac{1}{9} = 10 \quad 80 \times \frac{75}{100} = 60 \quad 20$$

$$40 \rightarrow 2000$$

$$\text{Total} \rightarrow \frac{2000}{40} \times 100 = 5,000$$

38. Total not cost comwelll winner Losser

$$100x \quad 10x \quad 60 \quad 47x \quad 43x - 60$$

$$47x - (43x - 60) = 308$$

$$4x + 60 = 308$$

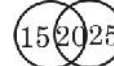
$$4x = 248$$

$$x = 62$$

$$\text{Valid vote} = 62 \times 90 - 60$$

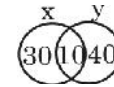
$$= 5580 - 60 = 5520$$

$$39. \text{ Total Fail} = 15 + 20 + 25 = 60$$



$$\text{Pass in both sub- } 100 - 60 = 40\%$$

$$40. \text{ Total read} = 30 + 10 + 40$$



$$= 80$$

$$\text{Not read} = 100 - 80 = 20\%$$

$$20\% \rightarrow 894$$

$$100\% \rightarrow \frac{894}{20} \times 100 =$$