

Assignment No. 1.

1) What is 25% of 200?

$$\Rightarrow 200 \times \frac{25}{100} = 50$$

option :- b

2) If 40% of number is 80 what is the number?

\Rightarrow consider number = x

$$\frac{40}{100} \times x = 80$$

$$x = \frac{80 \times 100}{40}$$

$$x = 200$$

option :- c

3) 75% of number is 150. what is number?

$$\frac{75}{100} \times x = 150$$

$$x = \frac{150 \times 100}{75}$$

$$x = 200$$

option :- b

4) What is 15% of 120?

$$\frac{15}{100} \times 120 = 18$$

option :- c

5) If 30% of number is 90 then number is

$$\Rightarrow \frac{30}{100} \times x = 90$$

$$= x = \frac{90 \times 100}{30}$$

$$= x = 300$$

option b c d are right

6) Price of product increase from rs 200 to 250. What is percentage increase?

$$\Rightarrow = \frac{250 - 200}{200} \times 100$$

$$= \frac{50}{2} = 25$$

option b

7) Salary increase from 40,000 to 50,000 what percentage increased?

$$\Rightarrow = \frac{10000}{40000} \times 100$$

$$= 25$$

Option = b

8) Population of town decreases from 10,000 to 8000. What is per. decrease

⇒

$$= \frac{2000}{10000} \times 100 \\ = 20\%$$

option 8 c

9) Books price drops from 500 to 400. what percentage?

$$\Rightarrow = \frac{100}{500} \times 100 \\ = 20\%$$

option 9 c

10) If CP of item is 600 and SP is 450 what is perc. loss?

⇒

$$= \frac{150}{600} \times 100 \\ = 25\%$$

option 10 c

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Section 3 & Percentage Comparison.

11) Which is greater ?
30% of 400 or 40% of 300?

$$\Rightarrow \frac{400 \times 30}{100} = \frac{300 \times 40}{100}$$

$$= 120 = 120$$

option 8

c) Both are equal

14)



12)

~~8~~ 60% of income spent and saved 8000. what total income.

15)



$$\frac{60}{100} \times x = x - 8000$$

$$0.6x = x - 8000$$

$$x - 0.6x = 8000$$

$$0.4x = 8000$$

$$x = 8000 / 0.4$$

$$x = 20000$$

13)

If A is 20% more than B then
how much less than A

~~3~~ Suppose, B = 100 A = 100

16)



A is 20% of B

$$A = 120$$

$$\frac{20}{100} \times 100 = 16.67$$

$$\frac{10}{100} \times 16.67 = 1.667$$

OPTION 8 B

14)

$$\Rightarrow -12 \cdot \frac{28}{125} \times 100 = 20\%$$

option g o

15)

~~$$A - \frac{B}{5} = 0$$~~

15)

$$\Rightarrow B = 100 \quad A = 100$$

A's income is 40% more than B

$$A = 140$$

$$= \frac{40}{100} \times 100 = \frac{40}{140} \times 5 = 28.57\%$$

option g o

16)

)

$$100$$

↓ increase 20%

$$120$$

$$\downarrow \text{decrease } 10\% = 120 \times \frac{10}{100} = 12$$

net percentage change is 8% increase

17)

$$\begin{array}{r} 100 \\ \downarrow \text{ increase } 30\% \\ 130 \end{array}$$

$$\begin{array}{r} 130 \\ \downarrow \text{ dec } 20\% = \frac{130 \times 20}{100} = 26 \\ \cancel{130} \end{array}$$

~~104~~

option & (a) 4% increase

18)

$$\begin{array}{r} 100 \\ \downarrow \text{ incre } 25\% \\ 125 \end{array}$$

$$\begin{array}{r} 125 \\ \downarrow \text{ decre } 20\% = 125 \times \frac{20}{100} = 25 \\ \cancel{125} \end{array}$$

option & 0%

19)

$$\begin{array}{r} 100 \\ \downarrow 40\% \text{ inc} \\ 140 \end{array}$$

$$\begin{array}{r} 140 \\ \downarrow \text{ dec } 30\% = 140 \times \frac{30}{100} = 42 \\ 98 \end{array} \quad \left. \begin{array}{r} 140 \\ 42 \\ \hline 98 \end{array} \right\}$$

option & (d) 2% decrease

20)

$$\begin{array}{c} 100 \\ \downarrow \text{increase } 20\% \\ 120 \end{array}$$

$$\begin{array}{l} 120 \\ \downarrow \text{dec } 10\% = \frac{120 \times 10}{100} \\ 108 \end{array}$$

$$\left\{ \begin{array}{r} 120 \\ -12 \\ \hline 108 \end{array} \right.$$

Option & @ 8% increase

21)

$$\Rightarrow P = 25\% \quad CP = ?$$

$$P = SP - CP$$

~~$$EP = +100 \text{ or } -100$$~~

$$If \ CP = 100, \ SP = CP + P = 100 + 25 = 125$$

$$SP = 100 \times \frac{25}{100}$$

$$SP = 125\%$$

23)



$$CP = 100$$

$$CP\% = 100 \times \frac{20}{100} = 20\%$$

$$SP = 120$$

$$\frac{20}{120} \times 100 = 16.67\%$$

24)

 \Rightarrow

$$\text{dis} = 1200 - 960 = 240$$

28)

 \Rightarrow

$$\begin{aligned}\text{Per dis} &= \frac{240}{1200} \times 100 \\ &= 20\%\end{aligned}$$

25)

 \Rightarrow

$$CP = 500 \quad SP = 650$$

$$\begin{aligned}\% &= \frac{150}{500} \times 100 \\ &= 30\%\end{aligned}$$

30)

 \Rightarrow 26) \Rightarrow

$$\text{Suppose } A = 100$$

$$B = 100$$

A income 20% more than B

$$A = 120$$

$$= \frac{20}{120} \times 100 = 16.67\%$$

31)

 \Rightarrow

27)

 \Rightarrow

$$TR = 3+2 = 5$$

$$\text{Boys ratio} = 3$$

$$\text{perc of boy} = \frac{3}{5} \times 100 = 60\%$$

28)

$$\Rightarrow - \frac{50000}{20000} \times 100$$

$$= 25\%$$

30)

 \Rightarrow

100

↓ reduce 30%.

70

$$= \frac{30}{70} \times 100 = \frac{300}{7} = 42.857$$

31)

 \Rightarrow

100

↓ incr ~~50%~~ 50%

150

$$\downarrow \text{dec } 50\% = 150 \times \frac{50}{100} = 75$$

75

OPTION (B) & 25% decrease

32)

 \Rightarrow A \neq B \approx 100

A = 100

A is 20% tall

A = 120

$$\frac{20}{+20} \times \frac{100}{6} = 16.67$$

34)

$\frac{100}{2}$

total inc is 100

Spent 75% = 25%

25% of income = 5000

$$TI = 5000 - 0.25 = 20,000$$

35)

$\frac{100}{2}$

\downarrow 20% incr

120

$$\downarrow \text{dec } 10\% = 120 \times \frac{10}{100} = 12$$

108

37)

$\frac{100}{2}$

100

\downarrow 25% of CP

125

$$\text{disc } \frac{125 \times 25}{125} = 25\%$$

No profit or loss

38)

$$\Rightarrow CP = 500$$

$$\cancel{S\%} L = 20\%$$

$$\frac{\cancel{20}}{500} \times \cancel{100} = 4$$

$$\frac{500 \times 20}{100} = 100$$

$$SP = 400$$

39)

 \Rightarrow

$$100$$

 \downarrow incr 10%

$$110$$

 \downarrow dec 10%

$$\frac{110 \times 10}{100} = 11$$

 gg

40)

~~40~~ 40% pass
get = 200 mark and fail 20 mark

to pass in exam = $200 + 20$
 > 240

$$\begin{aligned} &= \frac{\cancel{240} \times \cancel{100}}{\cancel{40}} \\ &= 550 \end{aligned}$$

42)

\Rightarrow

100

\downarrow inc 30%

$$130 \text{ decr } 30\% \quad 130 \times \frac{30}{100} = 39$$

g1

g% decrease

41)

$$\Rightarrow \frac{40}{100} \times x = 8000$$

$$0.4x = 8000$$

$$x = 45000$$

option 8 45000

42)

\Rightarrow Current population = 10,000

~~10%~~ 10% increase every year

$$10000 \times \frac{10}{100} = 1000$$

1st year 8 11000

$$2^{\text{nd}} \text{ year } 8 - 11000 \times \frac{10}{100} = 11000 + 1100 = 12100$$

$$3^{\text{rd}} \text{ year } 8 - 12100 \times \frac{10}{100} = 12100 + 1210 = 13310$$

Answer = 13310

46)

$$\Rightarrow CP = 200 \quad SP = 250$$

$$= \frac{50}{200} \times 100 \\ = 25\%$$

48)

$$\Rightarrow L\% = 15\% \quad CP = 500 \quad SP$$

$$L = CP - SP$$

$$L\% = \frac{L}{CP} \times 100$$

$$\frac{15}{100} \times 500 = L$$

$$75 = L$$

$$\cancel{SP} = 500 - 75 = 425$$

option 8 425

49)

$$\Rightarrow CP = 1500 \quad L\% = 10\% \quad SP = ?$$

$$\Rightarrow L = \frac{10}{100} \times 1500 = 150$$

$$SP = 1500 - 150$$

$$SP = 1350$$

50)
⇒

100

↓ 30 %

130 (MP)

$$\text{disc} = 13 (10\% \text{ MP})$$

~~$$SP = 117 (SP - CP)$$~~

$$P\% = 17\% (P/CP \times 100)$$