Profit and Loss

→ Cost Price (खरीदी किंमत) → (C.P.)

→ Selling Price (विक्री किंमत) → (S.P.)

→ Profit (नफा) :→ SP > CP | $P_r = S.P. - C.P.$ → $SP = CP + P_r$ → $CP = SP - P_r$

→ Loss (तोटा) :→ CP > SP | $Loss = CP - SP$ | $CP = SP + Loss$

1) CP = 1250
SP = 1740
P_r = 1740 − 1250
P_r = 490

2) CP = 500
P_r = 250
S.P. = 500 + 250
SP = 750

3) SP = 470
Loss = 130
CP = SP + Lo = 470 + 130
CP = 600

Cost Price	Selling Price	Profit /Loss	Profit/ Loss (%)
2000	2400	400	$\frac{400}{2000} \times 100 = 20\%$
2500	3300	800	$\frac{800}{2500} \times 100 = 32\%$
2800	2450	-350	$\frac{350}{2800} \times 100 = 12.5\%$
1500	1800	300	$\frac{300}{1500} \times 100 = 20\%$
300	250	-50	$\frac{50}{300} = \frac{1}{6} \times 100 = 16\frac{2}{3}\%$
360	432	+72	20 %
350	210	-140	-40 %
120	1440	240	20 %

$\frac{CP}{SP} = \frac{5}{6}$ (×72) = 360 / 432

$\frac{CP}{SP} = \frac{5}{3}$ (×70) = 350 / 210

$\frac{CP}{SP} = \frac{5}{6}$ (×240) = 1200 / 1440

Raj sold an item for Rs. 6,384/- and incurred a loss of 30%. At what price should he have sold the item to have gained a profit of 30% ?

a) Rs. 14, 565/-
b) Rs. 11, 856/-
c) Rs. 13, 544/-
d) Cannot be determined
e) None of these

$\frac{3}{10}$

$\frac{CP}{SP} = \frac{10}{7}$ — ×912 — 9120 / 912 — 6384

P% = 30%

SP = 13 — ×912 — 11856

CP = 10
Loss = 30%
SP_1 = 7
Profit = 30%
SP_2 = 13

7 — ×912 — 6384
13 — ×912 — 11856

Kiran purchased a scooter for Rs. 52000. He sold it at loss of 10%. With that money he purchased another scooter and sold it at profit of 20%. What is his overall loss/ profit?

A) Rs. 4160 profit
B) Rs. 2060 profit
C) Rs. 2560 loss
D) Rs. 1340 loss
E) None

CP = 52000
Loss = 10% = 5200
SP = 46800

CP = 46800
P% = 20% = 9360
SP = 56160

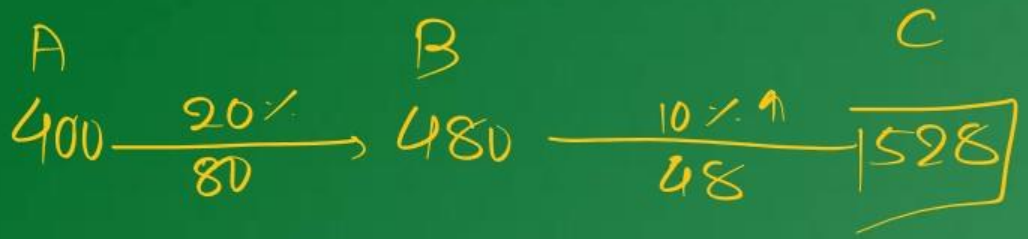
56160 − 52000 = 4160

CP = 100 $\xrightarrow{-10\%\downarrow}$ 90 $\xrightarrow{+20\%\uparrow}$ 108

8% ↑ 52000 = 4160

A sells an article which cost him Rs. 400 to B at a profit of 20%. B then sells it to C, making a profit of 10% on the price he paid to A. How much does C pay to B?

a) 472
b) 520
c) 528
d) 540
e) 620



The profit made on a product is 25 %. What is the loss percent incurred on the sale if the figures of both CP and SP are interchanged ?

a) 15 %
b) 20 %
c) 16 %
d) 25 %.
e) None

CP = 4
SP = 5

CP = 5
SP = 4

$\text{loss} = \frac{1}{5} \times 100 = 20\%$

Rani buys a old bike for Rs. 15000. If she spent 12% of the cost price for repairing , at what price should it be sold to earn 10% ?

a) 18000
b) 18480
c) 16800
d) 20000
e) 18800

CP = 100

Repairing = 12% of 100 = 12

CP = 112

Profit = 10% of 112 = 11.2

SP = 123.2% of 15000

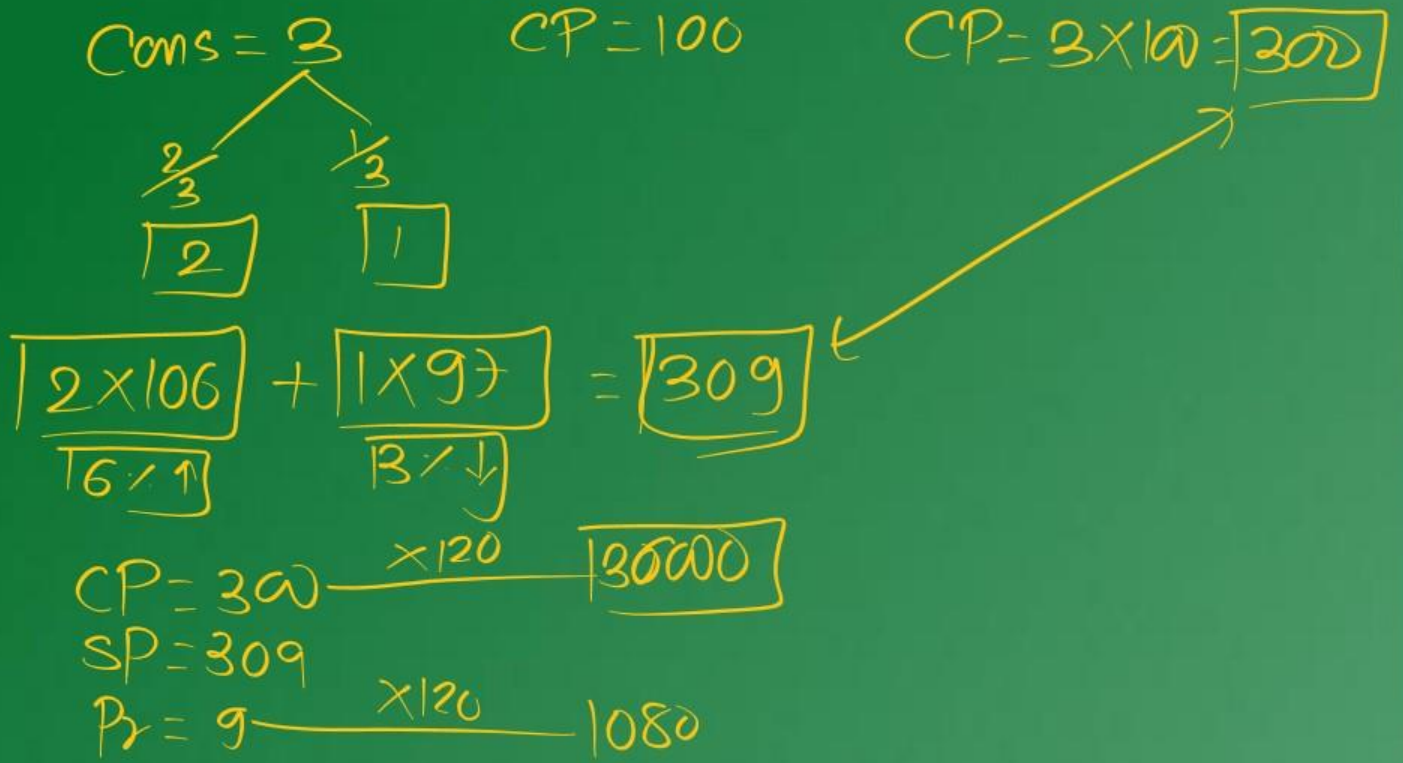
15000 $\xrightarrow{12\%\uparrow}$ 16800 $\xrightarrow{10\%\uparrow}$

+1800 +1680

SP = 18480

Two-thirds of a consignment was sold at a profit of 6% while the rest at a loss of 3%. If there was an over all profit of Rs. 1080, the value of the consignment was

a) 25000
b) 30000
c) 36000
d) 40000
e) 28000



A vehicle dealer bought 5 second hand tractors for Rs. 2,00,000. He spent Rs. 2,00,000 additional on the maintenance and repairing of these 5 tractors. He sold one of the tractors for Rs. 1,50,000. What should be the average selling price of rest of the four tractors, if he makes 40% profit on the whole transaction?

a) 100000
b) 120000
c) 102500
d) 125000
e) 150000

$CP = 200000 + 200000 = 400000$

$P\% = 40\% \text{ of } 400000 = 160000$

$SP = 560000$

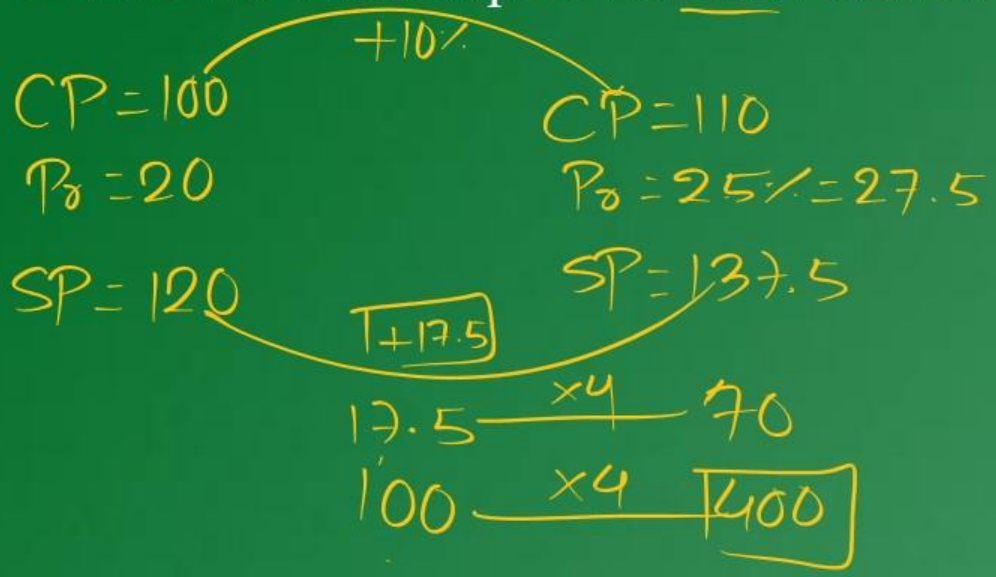
$(150000) + (4 \times x) = 560000$

$4x = 410000$

$x = \frac{410000}{4} = \boxed{102500}$

A trader sells his goods at 20% profit. Had he bought it at 10% more and sold it for Rs. 70 more, he would have earned a profit of 25%. Find the cost price of the goods.

a) 400
b) 250
c) 450
d) 500
e) 650



A smartphone costs 10 times the cost of a headphone. On selling smartphone there is a profit of 15% while the total profit on selling both headphone and smartphone is 20%. If there is a profit of Rs. 2800 on selling headphone then find the cost price of smartphone ?

a) 25000
b) 40000
c) 45000
d) 30000
e) 35000

Smartphone	Headphone	Overall
CP = 1000	CP = 100	CP = 1100
P% = 15% = 150	P% = 70	P% = 20% = 220

$150 + 70 = 220$

$70 \xrightarrow{\times 40} 2800$

$1000 \xrightarrow{\times 40} 40000$

A man purchased 150 chairs, each costing the same, but 40% of them are damaged which cannot be sold. He sold 50% of the remaining at 20% profit each and remaining at 5% loss each. If the total selling price of chairs is Rs. 7740, then what was the total cost price of all chairs?

a) 11000
b) 12000
c) 13000
d) 14000
e) 15000

Total = 150 CP = 100 Overall (CP) = 15000

Good = 60% of 150 = 90

50% 50%

45 45

$SP = (45 \times 120) + (45 \times 95) = 45 \times 215 = 9675$

(20% ↑) (5% ↓)

9675 — 7740 (×20)

15000 — P (×20)

P = 12000

Discount

1) Discount हमेशा Marked Price (MP) वर दिला जातो.
2) SP = MP - Disc
3) Disc = MP - SP
4) MP = SP + Disc

CP = 500
Pr = 40 % of 500 = 200
SP = 700

Marked Price / Labelled

MP = 1000
Disc = 30 % of 1000 = 300
SP = 1000 - 300 = 700

1) Pr = 40 %

Disc = 20 %

CP : SP : MP = 20 : 28 : 35

$\frac{CP}{SP} = \frac{100}{140} = \frac{5}{7} = \frac{20}{28}$ (×4, ×4)

$\frac{MP}{SP} = \frac{100}{80} = \frac{5}{4} = \frac{35}{28}$ (×7, ×7)

2) Disc = 20 % = 1/5

Pr = 25 % = 1/4

CP : SP : MP

$\frac{CP}{SP} = \frac{4}{5} = \frac{16}{20}$

$\frac{MP}{SP} = \frac{5}{4} = \frac{25}{20}$

CP : SP : MP = 16 : 20 : 25

3) Disc = 25 % = 1/4

Loss = 20 % = 1/5

CP : SP : MP

$\frac{CP}{SP} = \frac{5}{4} = \frac{15}{12}$

$\frac{MP}{SP} = \frac{4}{3} = \frac{16}{12}$ (×4)

CP : SP : MP = 15 : 12 : 16