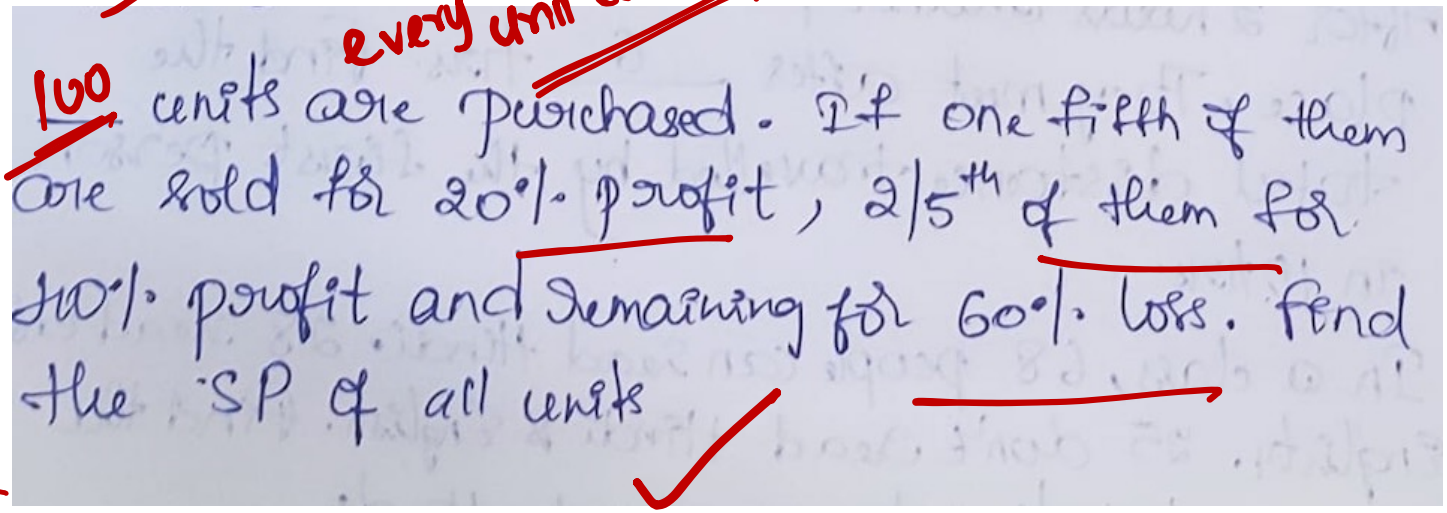
TCS NQT 2024 DISCUSSION:

Q.



day 1

Sol: 100 units = 100rs , 1unit = 1rs

$100 \times \frac{2}{5}$

20 —20%→ 24 ✓

40 —40%→ 56 ✓

40 —60%→ 16

Simple.

CP 100 — SP 96

TCS NQT 2024 DISCUSSION:

One–third of goods are sold at a 15% profit, 25% of the goods are sold at a 20% profit and the rest at a 20% loss. If the total profit of Rs. 138.50 is earned on the whole transaction, then the value (in Rs.) of the goods is:

- Rs. 8,310
- Rs. 8,587
- Rs. 7,756
- Rs. 8,030

x

$\frac{x}{3} \times \frac{115}{100} = \frac{115x}{}$ ✓

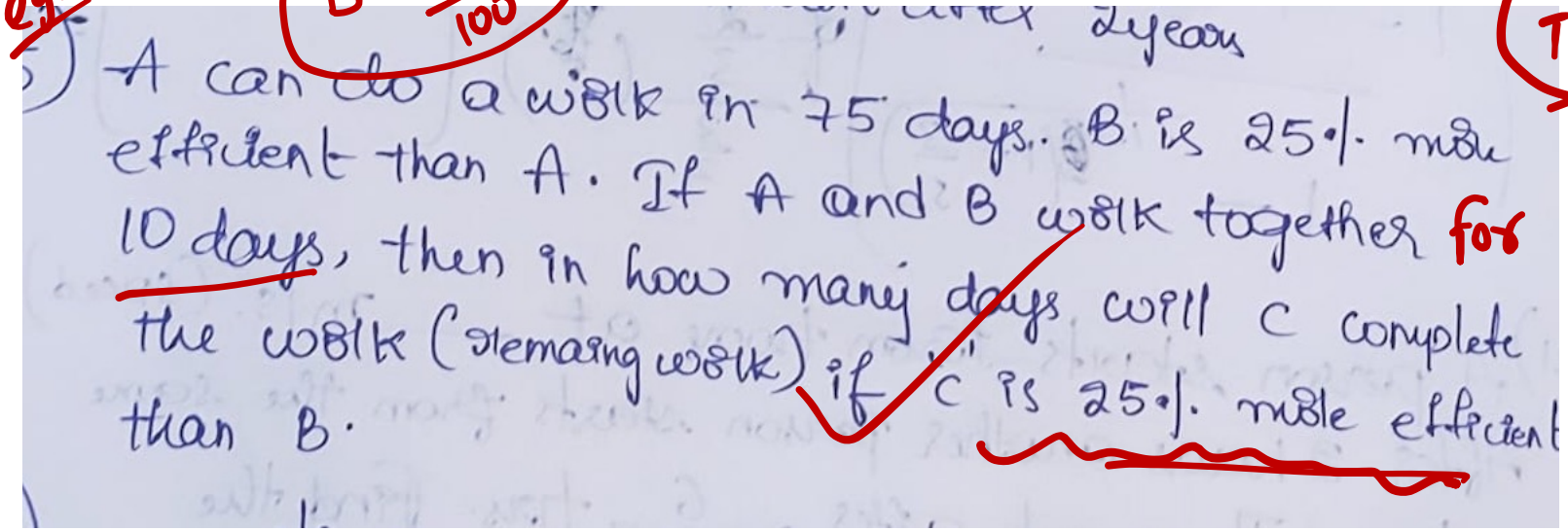
$\frac{x}{4} \times \frac{120}{100} = \frac{30x}{100}$

$1 - \left(\frac{x}{3} + \frac{x}{4}\right)$

2min

TCS NQT 2024 DISCUSSION:

Q9.



$B = \frac{125}{100} A$

Tricky

Simple.

$B = \frac{5}{4} A$ — (1)

	eff	× days	= 300
A	4	× 75	
B	5 ✓		
C	6.25		

$(A+B) \times 10 = (4+5) \times 10 = 90$

✓ $300 - 90 = 210$

$\frac{210}{6.25} =$ 33 days

A = 75 days B = 25% more efficient than A

B is 25% more efficient than A.

$\frac{5 \times 25}{100}$

1.25

work = day × eff

A = 100

B = 125

C = $\frac{5 \times 25}{100} = \frac{125}{100}$ (1.25)

$\frac{B}{A} = \frac{125}{100}\ \frac{5}{4}$ ~~200~~

C 25% ↑ than B

C : 6.25 B : 5

C = B + 1.25

5 + 1.25

TCS NQT 2024 DISCUSSION:

$SI = \frac{P \times R \times T}{100}$

4) A certain sum of Rs. 5,000 is invested for 2 years at 10% p.a. find the S.I. on it. The amount obtained is now compounded annually at same rate. find the total amount after 2 years

$P = 5,000$, $t = 2$ year, $10\% = r$

$SI = \frac{5,000 \times 2 \times 10}{100} = 1000$ ✓

Amount = 5,000 + 1,000

= 6,000 ✓

$P = 6,000$, $r = 10\%$, 2 years

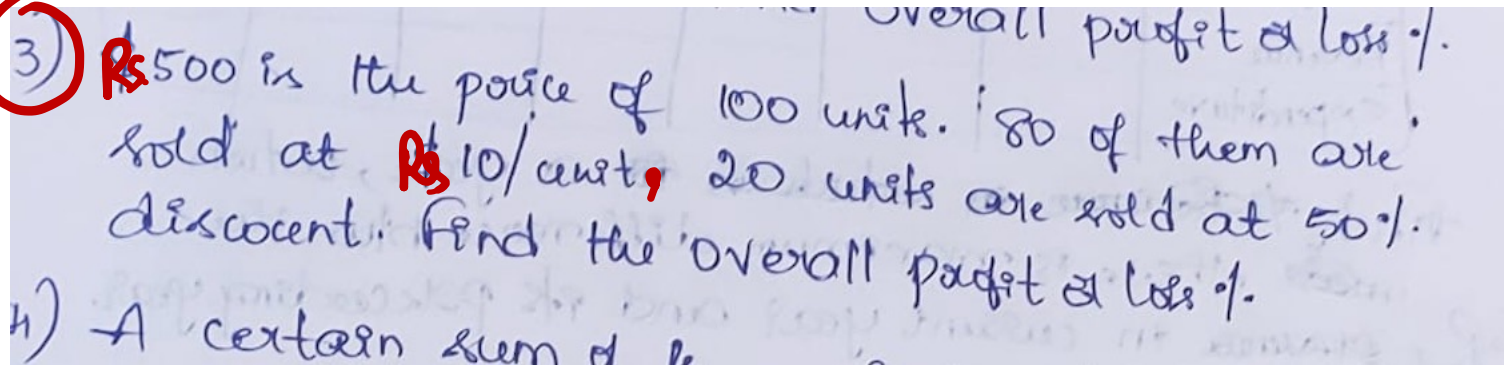
$A = P\left(1 + \frac{r}{100}\right)^n$

$6000\left(1 + \frac{1}{10}\right)^2$

$6000 \times \frac{11}{10} \times \frac{11}{10} = \frac{121}{6}$

7260 ✓

TCS NQT 2024 DISCUSSION:



3) Rs500 is the price of 100 unit. 80 of them are sold at Rs10/unit, 20 units are sold at 50% discount. Find the overall profit & loss %.

4) A certain sum of

CP * 100 units → 500rs ✓

1 unit → $\frac{500}{100}$ = 5rs ✓

5rs

50% → 2.5

SP

80 × 10 = 800rs

20 × 2.5 = 50rs

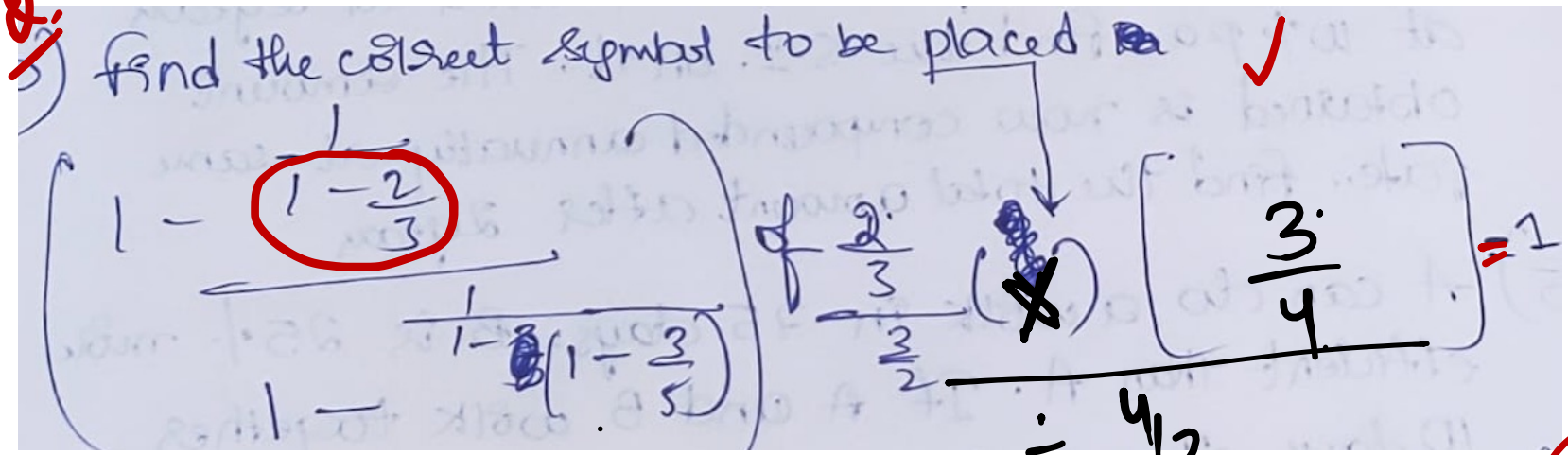
850

Profit % = $\frac{\text{Profit}}{CP} \times 100 = \frac{350}{500} \times 100$

70%

TCS NQT 2024 DISCUSSION:

Q.



17th July

Q. $1-\frac{2}{3}=\left(\frac{1}{3}\right)$

$1-\frac{3}{5}=\frac{2}{5}$

$\frac{1}{(1/3)}$

$\frac{4}{3}\times\frac{3}{4}=1$

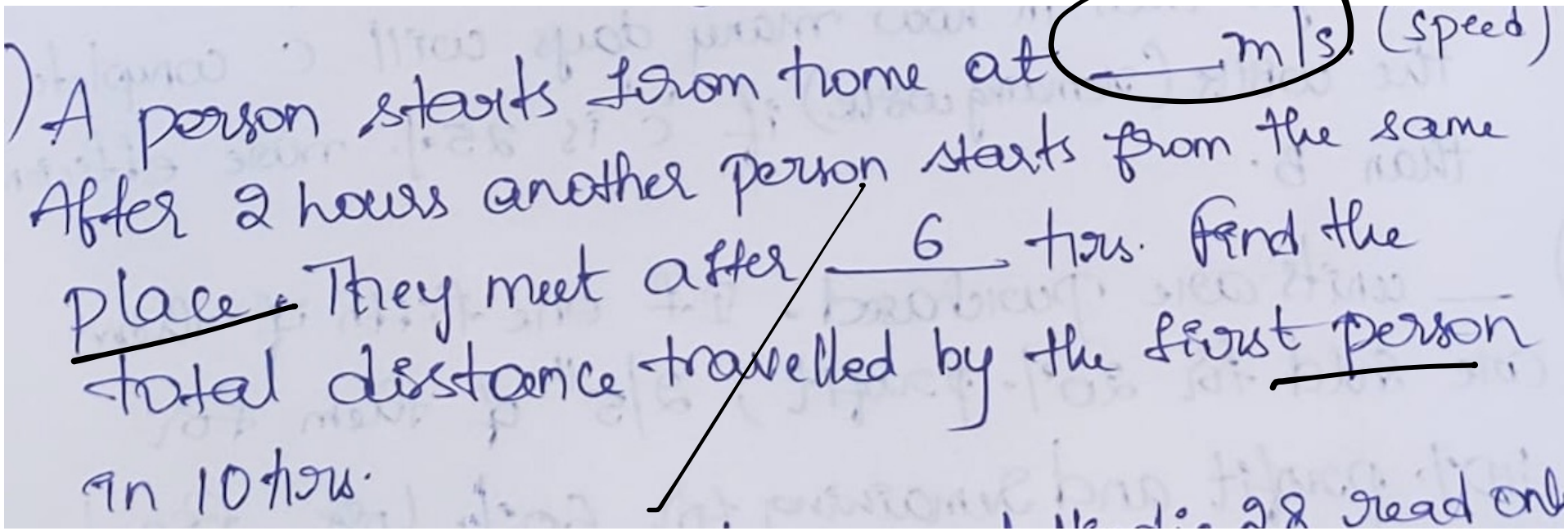
$\Rightarrow \left(\frac{1-\frac{1}{3}}{1-\frac{1}{1-\frac{2}{5}}}\right)\times\frac{4}{9}=\left(\frac{1-3}{1-\frac{1}{3/5}}\right)\times\frac{4}{9}$

$\frac{2}{3}\times\frac{2}{3}=\frac{4}{9}$

$=\left(\frac{-2}{1-\frac{5}{3}}\right)\times 4/9$

$\left(\frac{-2\times 3}{-2}\right)\times\frac{4}{9}=3$

TCS NQT 2024 DISCUSSION:



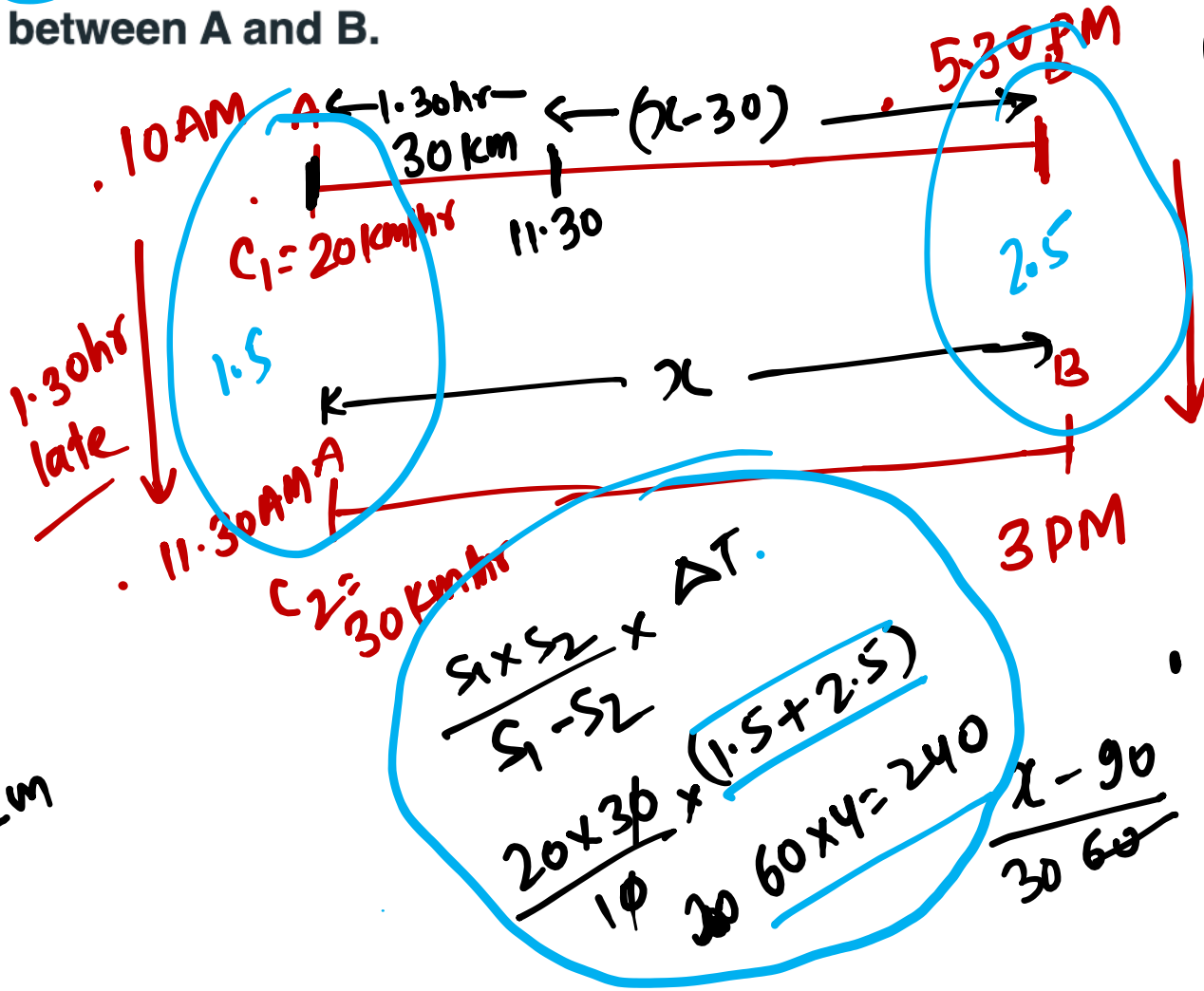
TCS NQT 2024 DISCUSSION:

A car starts from point A towards point B, travelling at the speed of 20 km/h. 1 $\frac{1}{2}$ hours later, another car starts from point A and travelling at the speed of 30 km/h and reaches 2 $\frac{1}{2}$ hours before the first car. Find the distance between A and B.

1. 300 km
2. 240 km
3. 260km
4. 280 km

$D = \frac{S_1 \times S_2}{S_1 - S_2} \times \Delta t$

$\frac{5}{2}$ hr



20km/hr
1hr = 20km
30min = 10km

$\frac{S_1 \times S_2}{S_1 - S_2} \times \Delta T$

$\frac{20 \times 30}{10} \times (1.5 + 2.5)$

$60 \times 4 = 240$

$t_1 - t_2 = \frac{5}{2}$ hr

$\frac{(x-30)}{20} - \frac{x}{30} = \frac{5}{2}$

$\frac{3x - 90 - 2x}{60} = \frac{5}{2}$

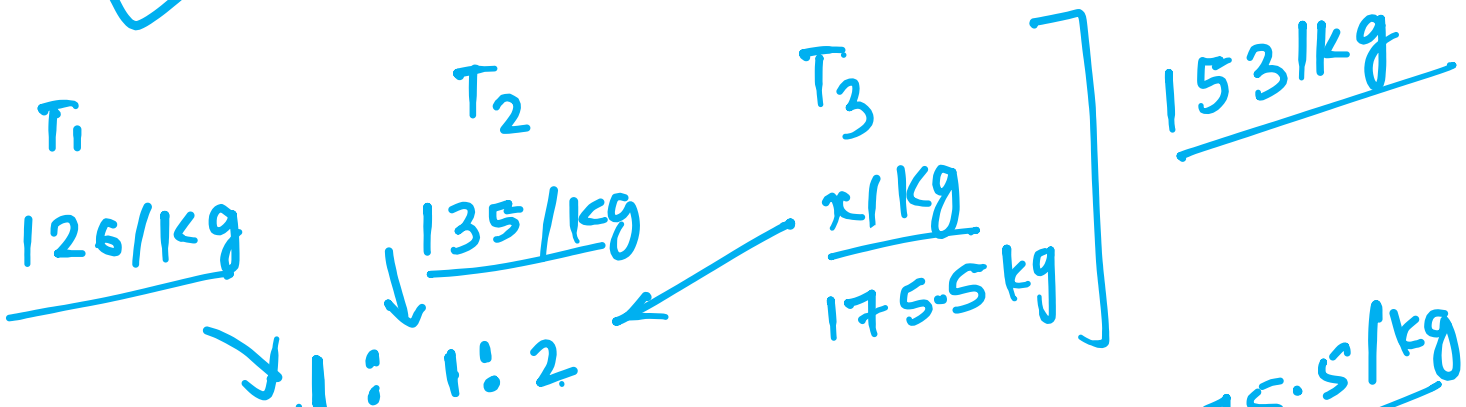
$\frac{x - 90}{30} = \frac{5}{2}$

$x - 90 = 150$

$x = 240$ km ✓

TCS NQT 2024 DISCUSSION:

Tea worth Rs 126 per kg and Rs 135 per kg are mixed with a third variety in the ratio 1:1: 2. If the mixture is worth Rs 153 per kg, the price of the third variety per kg will be :
(A) Rs. 169.50 (B) Rs. 175.50(B) Rs. 170 (D) Rs. 180



$$\frac{126+135+2x}{4} = 153$$

$$261+2x = 612$$

$$2x = 351$$

$$x = 175.5/kg$$

$$(1+126)+(1+135)+(2\times x) = 153$$

$$x = 175.5$$

TCS NQT 2024 DISCUSSION:

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