

jargons

- compounded = product
- sub-duplicate = squareroot
- duplicate = squared
- triplicate = cube

simple trick you missed

Handwritten mathematical derivation on a whiteboard:

$$\underline{A} + \underline{B} + \underline{C} + \underline{D} = \text{Rs } 60,000$$

Derivation for A:

$$A = \frac{1}{2} [B + C + D] \quad A + \frac{B + C + D}{2A} = 60K$$
$$3A = 60K$$
$$\boxed{A = 20K}$$

Derivation for B:

$$B = \frac{1}{3} [A + C + D]$$
$$4B = 60K$$
$$\boxed{B = 15K}$$

Derivation for C:

$$C = \frac{1}{4} [A + B + D]$$

Final result for D:

$$\boxed{D = ?}$$

you must have a common denotation

- here ratio is for the number of coins and not values

1p 5p 25p

1 : 4 : 4

1p 4p 4p

$x + 4x\left(\frac{1}{2}\right) + 4x\left(\frac{1}{4}\right) = 400p$

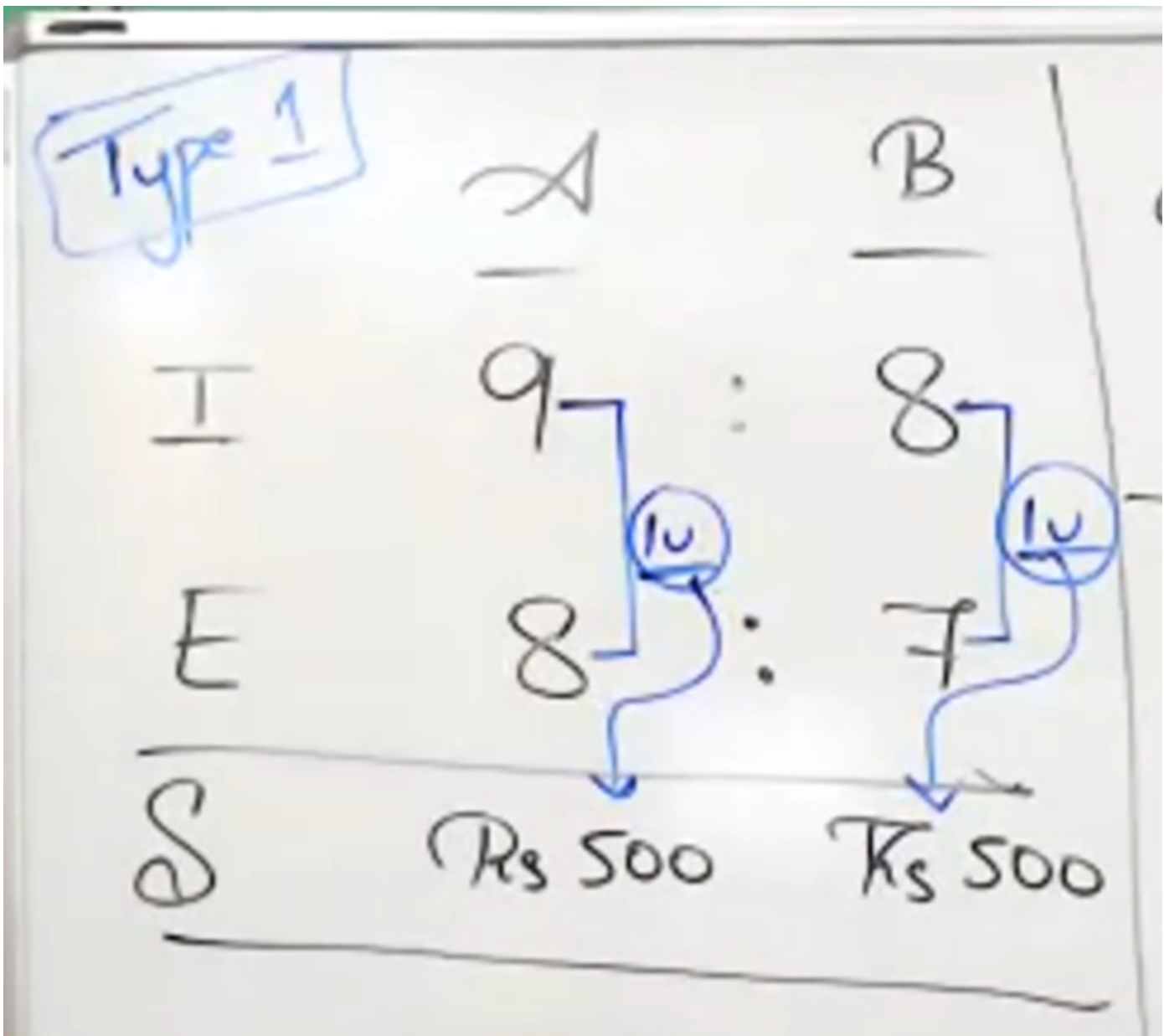
$4x = 400$

$x = 100$

RATIO TRICKS

type1

- things to look for
 - difference in the income and expense ratio is same
 - their savings must be same as well
- only then you can use the trick below



- ##### here they asking A's salary

- here difference is one so

$$1u = 500$$

- using this we can get anything

type2

- things to look for
 - difference in the income and expense ratio is same
 - their savings aint gonna be same
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Type 2	α	B	5
I	5	6	6
E	3	4	6
S	Rs 1800	Rs 1600	

$2u \rightarrow 2400$
 $1v \rightarrow 1200$

◦ here they asking B's salary

- here we do $5 * 4 - 6 * 3 = 2u$ for lhs
- here for we do $4 * 1800 - 3 * 1600$ for rhs
- finally you have

$$2u = 2400$$

- hence you have 1 unit as 1200

type3

- things to look for
 - difference in the income and expense ration is different
 - their savings is same

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Type 3		A	B
I		3	2 $\times 2$
		6	4
E		5	3
		1u	1u
S		1500	1500

Diagram illustrating the relationship between income (I), expense (E), and savings (S) for two entities, A and B, under Type 3 conditions. The diagram shows that the difference in the income and expense ratio is different, but their savings are the same (1500). The income for A is 3, and for B is 2 (multiplied by 2 to get 4). The expense for A is 5, and for B is 3. The savings for both are 1500. The diagram also shows that the difference in the income and expense ratio is different (3/5 for A, 4/3 for B).

- here they asking B's salary
- make the difference the ratio's numerator and denominator as same
- here 2 is multiplied for income ratio cuz it is the lcm of 3 — 2 and 5 — 3 m and TOTALLY discard the previous ratio
- yo answer is $1500 * 4 = 6000$