

Answer on Question #40862 – Math - Algebra

A sum of Rs.95000 is to be divided among A, B and C in such a way that A:B is 2:3 and B:C is 2:3 what will be the share of A

Solution:

$$A+B+C=95000,$$

$\frac{A}{B} = \frac{2}{3}$, hence $A = \frac{2}{3}B$; $\frac{B}{C} = \frac{2}{3}$, hence $B = \frac{2}{3}C$, so $A = \frac{2}{3} \cdot \frac{2}{3}C = \frac{4}{9}C$ and now $A+B+C = \frac{4}{9}C + \frac{2}{3}C + C = \frac{19}{9}C$. Thus, $\frac{19}{9}C = 95000$, $C = 95000 * \frac{9}{19} = 45000$; $B = \frac{2}{3} \cdot 45000 = 30000$; $A = \frac{2}{3} \cdot 30000 = 20000$.

Answer: a share of A is 20000.