

A man spends $\frac{1}{3}$ of his salary on food, $\frac{1}{4}$ on transportation and saves the rest. If he saves \$200, what is his salary?

Solution

To solve this question, you can apply an equation.

Step 1

$$(1/3 \text{ of } X) + (1/4 \text{ of } X) + (200) = (X)$$

Step 2

$$1/3 \text{ of } X = X/3 \quad \dots\dots\dots \text{ multiply } 1/3 \text{ by } X$$

$$1/4 \text{ of } X = X/4 \quad \dots\dots\dots \text{ multiply } 1/4 \text{ by } X$$

So the equation becomes $X/3 + X/4 + 200 = X$

Step 3

Solve for X

$$\frac{X}{3} + \frac{X}{4} + 200 = X$$

$$\frac{X}{3} + \frac{X}{4} + \frac{200}{1} = \frac{X}{1}$$

$$\frac{4X + 3X + 2400}{12} = 12X$$

Step 4

$$4X + 3X + 2400 = 12X$$

$$7X + 2400 = 12X \quad 2400 = 12X - 7X \quad 2400 = 5X$$

$$X = 2400/5 \quad X = 480$$