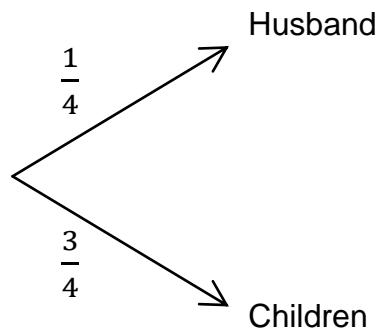


Questions from Uriel (24 Feb)

1. Mdm Choo buys a carton of orange juice. Her husband drinks $\frac{1}{4}$ of the orange juice in the carton while her children share the remaining orange juice. If **each child drinks $\frac{1}{8}$** of the orange juice in the carton, how many children does she have?

Solution:



$$\text{Children} \rightarrow \frac{3}{4}$$

$$\text{1 Child} \rightarrow \frac{1}{8}$$

$$\begin{aligned} \frac{3}{4} \div \frac{1}{8} &= \frac{3}{4} \times \frac{8}{1} \\ &= 6 \end{aligned}$$

Ans: Mdm Choo has 6 children.

2. Jovan collected 84 country erasers and ice-cream sticks. After giving away 18 country erasers, there were $\frac{5}{6}$ as many country erasers as ice-cream sticks left. How many country erasers did Jovan collect?

Solution:

| | <u>Erasers</u> | : <u>Sticks</u> | → | <u>Erasers</u> | : <u>Sticks</u> |
|--------|----------------|-----------------|---|----------------|-----------------|
| Before | ? | : ? | | 5 units + 18 | : 6 units |
| | -18 | | | -18 | |
| | | | | | |
| After | 5 units | : 6 units | | 5 units | : 6 units |

$$5 \text{ units} + 18 + 6 \text{ units} \rightarrow 84$$

$$11 \text{ units} \rightarrow 84 - 18 = 66$$

$$1 \text{ unit} \rightarrow 6$$

$$5 \text{ units} + 18 \rightarrow 30 + 18 = 48$$

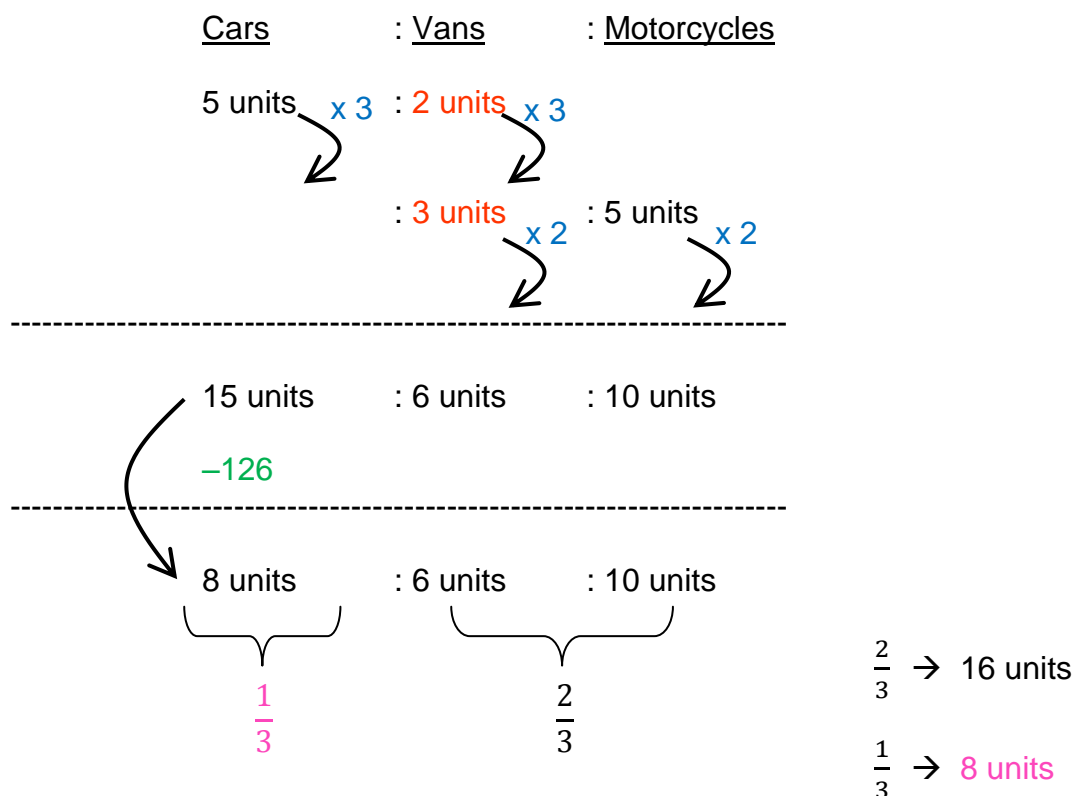
Ans: Jovan collected 48 country erasers.

3. At a car park, the ratio of the number of cars to the number of vans was 5 : 2. The ratio of the number of vans to the number of motorcycles was 3 : 5.

(a) What was the ratio of the number of cars to the number of vans to the number of motorcycles at the car park?

(b) After 126 cars drove off, $\frac{1}{3}$ of the remaining vehicles at the car park were cars. How many vehicles remained at the car park?

Solution:



$$15 - 8 = 7 \text{ units}$$

$$7 \text{ units} \rightarrow 126$$

$$1 \text{ unit} \rightarrow 18$$

$$8 + 6 + 10 = 24 \text{ units}$$

$$24 \text{ units} \rightarrow 432$$

Ans: (a) 15 : 6 : 10 ; (b) 432 vehicles remained at the car park.

4. Howard has $\$m$. His brother has 4 times as much money as him and has $\$28$ more than his sister.

(a) Find, in terms of m , the amount of money Howard's sister has.

(b) If $m = 12$, how much money does Howard's sister have?

Solution:

Howard's brother $\rightarrow 4 \times \$m = \$4m$

Howard's sister $\rightarrow \$4m - \$28 = \$(4m - 28)$

If $m = 12$, Howard's sister has $\$(4 \times 12 - 28) = \20

Ans: (a) $\$(4m - 28)$; (b) Howard's sister has $\$20$.