

2-step Multiplication

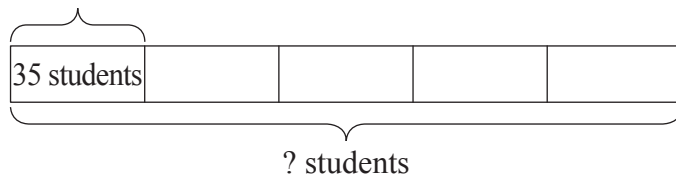
2-step Word Problems

Example 1

In a tuition centre, there are 5 classrooms.
There are 35 students in each classroom.
If there are 15 teachers, how many teachers and students are there in the tuition centre?

Solution:

1 classroom



First, find the total number of students in 5 classrooms:

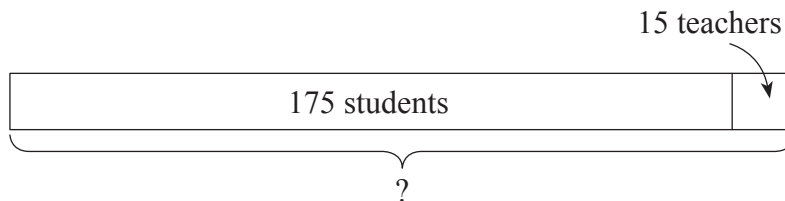
1 classroom \rightarrow 35 students

5 classrooms \rightarrow ? students

$$35 \times 5 = 175$$

There are 175 students.

Then, find the total number of teachers and students:



Students \rightarrow 175

Teachers \rightarrow 15

$$175 + 15 = 190$$

There are 190 teachers and students in the tuition centre.

Working

First Step:

$$\begin{array}{r} ^2 35 \\ \times 5 \\ \hline 175 \end{array}$$

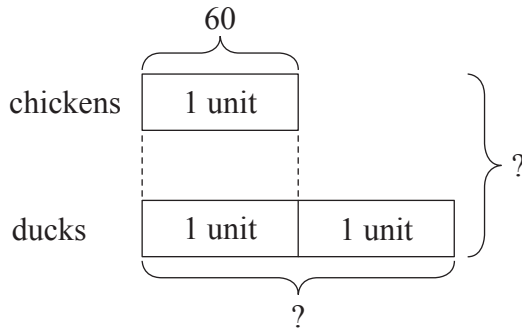
Second Step:

$$\begin{array}{r} ^1 175 \\ + 15 \\ \hline 190 \end{array}$$

Example 2

On a farm, there are 60 chickens.
There are twice as many ducks as there are chickens.
How many animals are there on the farm?

Solution:



The word 'twice' shows 2 units representing ducks when 1 unit is used to represent chickens. Therefore, the models are drawn as shown.

First, find the number of ducks:

1 unit \rightarrow 60 chickens

2 units \rightarrow ? ducks

$$60 \times 2 = 120$$

There are 120 ducks.

Then, find the total number of animals:

Ducks \rightarrow 120

Chickens \rightarrow 60

$$120 + 60 = 180$$

There are 180 animals on the farm.

Working

First Step:

$$\begin{array}{r} 60 \\ \times 2 \\ \hline 120 \end{array}$$

Second Step:

$$\begin{array}{r} 120 \\ + 60 \\ \hline 180 \end{array}$$

Adapted:

Conquer Model Drawing for Lower Primary Levels

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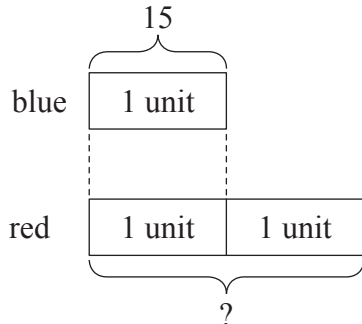
STRICTLY NOT FOR SALE.

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Example 3

There are 15 blue pens in a case.
There are twice as many red pens as blue pens in the case.
If there are twice as many green pens as red pens in the case,
how many green pens are there?

Solution:



The word 'twice' shows 2 units representing red pens when 1 unit is used to represent blue pens. There are also 2 times as many green pens as red pens. Therefore, the models are drawn as shown.

First, find the number of red pens:

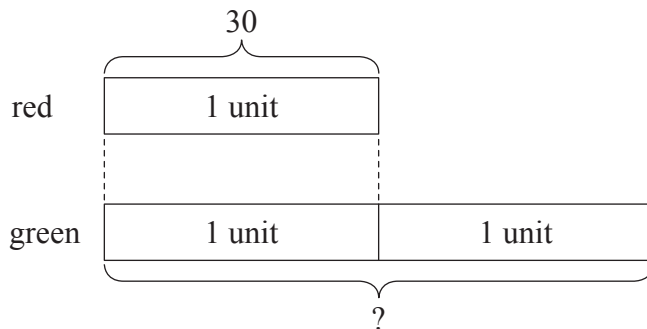
1 unit \rightarrow 15 blue pens

2 units \rightarrow ? red pens

$$15 \times 2 = 30$$

There are 30 red pens.

Then, find the number of green pens:



1 unit \rightarrow 30 red pens

2 units \rightarrow ? green pens

$$30 \times 2 = 60$$

There are 60 green pens.

Working

First Step:

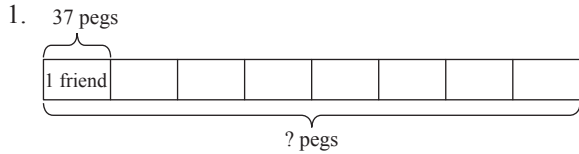
$$\begin{array}{r} 15 \\ \times 2 \\ \hline 30 \end{array}$$

Second Step:

$$\begin{array}{r} 30 \\ \times 2 \\ \hline 60 \end{array}$$

Solutions:

2-step Multiplication



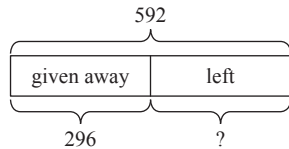
First, find the total number of pegs he gave to his 8 friends:

1 friend → 37 pegs

8 friends → ? pegs

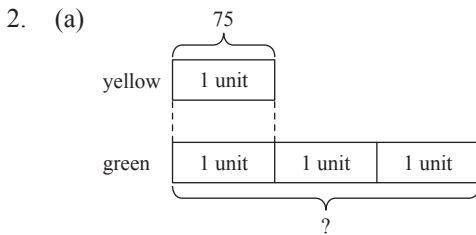
$$37 \times 8 = 296$$

Then, we can find the number of pegs left:



$$592 - 296 = 296$$

He had 296 pegs left.



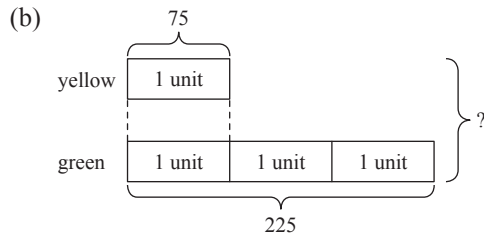
First, find the number of green balls:

1 unit → 75 yellow balls

3 units → ? green balls

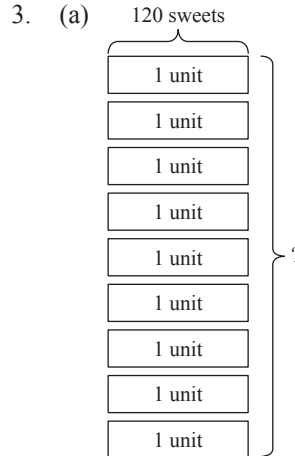
$$75 \times 3 = 225$$

There are 225 green balls.



$$225 + 75 = 300$$

There are 300 balls altogether.



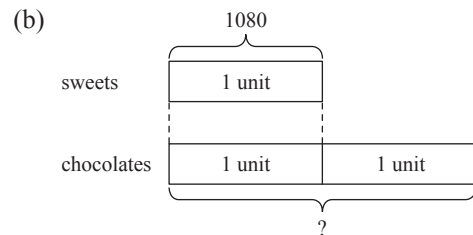
First, find the number of sweets:

1 unit → 120 sweets

9 units → ? sweets

$$120 \times 9 = 1080$$

There were 1080 sweets.



1 unit → 1080 sweets

2 units → ? chocolates

$$1080 \times 2 = 2160$$

There were 2160 chocolates.