

# Using Ratio Tables

A ratio table showing equal ratios can be used to solve a proportion.

Ross uses 11 skeins of yarn to make 4 scarves. How many scarves can he make from 66 skeins of yarn?

Write a proportion. Use  $x$  for the number of scarves.

$$\frac{4 \text{ scarves}}{11 \text{ skeins}} = \frac{x \text{ scarves}}{66 \text{ skeins}}$$

Make a ratio table. Multiply or divide to find equal ratios. Find ratios equivalent to  $\frac{4}{11}$  by multiplying both terms of the ratio by the same number until you find 66 skeins.

<b>Number of scarves</b>	4	8	12	16	20	24
<b>Number of skeins</b>	11	22	33	44	55	66

$$\frac{4 \text{ scarves}}{11 \text{ skeins}} = \frac{24 \text{ scarves}}{66 \text{ skeins}}$$

So, Ross can make 24 scarves from 66 skeins of yarn.

Answer the question and complete each ratio table.

1.  $\frac{\$25}{\boxed{\phantom{000}} \text{ min}} = \frac{\$200}{1,000 \text{ min}}$

<b>Number of dollars</b>	200	100	50	25
<b>Number of minutes</b>	1,000			

2.  $\frac{\boxed{\phantom{000}} \text{ batteries}}{9 \text{ flashlights}} = \frac{12 \text{ batteries}}{3 \text{ flashlights}}$

<b>Number of batteries</b>				
<b>Number of flashlights</b>				

3.  $\frac{\boxed{\phantom{000}} \text{ ft}}{800 \text{ h}} = \frac{9 \text{ ft}}{8 \text{ h}}$

<b>Number of _____</b>				
<b>Number of _____</b>				

4.  $\frac{4 \text{ carts}}{16 \text{ horses}} = \frac{\boxed{\phantom{000}} \text{ carts}}{64 \text{ horses}}$

<b>Number of _____</b>				
<b>Number of _____</b>				

5. Laine was practicing her free throws. She shot nine times and made five baskets. At this rate, how many times will she need to shoot to make 35 baskets?

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6. Hiram said that he can use the same ratio table to solve the two proportions below. Do you agree or disagree with Hiram?

$$\frac{8 \text{ cows}}{2 \text{ pigs}} = \frac{c \text{ cows}}{10 \text{ pigs}}$$

$$\frac{2 \text{ pigs}}{8 \text{ cows}} = \frac{10 \text{ pigs}}{c \text{ cows}}$$