

Ratio Problems and Bar/Block Models 2

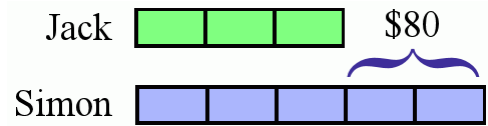
Example.

Jack and Simon divided a reward in a ratio of 3:5. Simon got \$80 more than Jack. How much was the total reward? How much did each boy get?

In this problem, we know the *difference* between how much Jack and Simon got. We draw Jack's and Simon's parts side by side. Jack gets 3 "blocks" and Simon gets 5 "blocks."

The *difference* is now easily seen from the model. Simon's part was 2 blocks more than Jack's, and those 2 blocks equal \$80. Therefore, 1 block equals \$40.

So, the total reward was $8 \times \$40 = 320$, Jack got $3 \times \$40 = \120 , and Simon got $5 \times \$40 = \200 .



1. A crate of cell phones has red and silver models in a ratio of 2:7. There are 300 more silver phones than red ones.

- a. Draw a block model to represent the situation.
- b. How many phones are in the crate?
- c. How many are red?

2. Eric and Erica collect phone cards, and their phone cards are in a ratio of 3:4. If Erica has 14 more phone cards than Eric, how many cards does Eric have?

3. The life spans of Mr. Short and Mr. Long were in a ratio of 3:7. Mr. Long lived 44 years longer than Mr. Short. How long did Mr. Long live?

4. Mark and Mary shared a sum of money in a ratio of 2:5. Then Mary gave $\frac{1}{5}$ of her money to Mark. Now Mary has \$30 more than Mark. What was the total sum of money?