A biking team raises $4,250 for charity.
A running team raises $825 more than the biking team.

a. How much money does the running team raise?

\[ \text{biking team} \quad \text{running team} \]
\[ \$4,250 \quad \$825 \]

\[ \text{biking team} \quad \text{running team} \]
\[ \text{??} \]

\[ \$4,250 + \$825 = \$5,075 \]

The running team raises $5,075.

b. How much money do both teams raise in all?

\[ \$4,250 + \$5,075 = \$9,325 \]

Both teams raise $9,325 in all.
Solve. Use bar models to help you.

1. The third graders collect 487 cans of food for a food drive. The second graders collect 175 fewer cans than the third graders.
   a. How many cans do the second graders collect?
   
   The second graders collect ___________ cans.

   b. How many cans do both grades collect in all?
   
   Both grades collect ___________ cans in all.
Solve. Use bar models to help you.

2. A bookshop has 4,320 books and magazines. It has 2,169 books. The rest are magazines.
   a. How many magazines does the bookshop have?

   books
   ⇓
   magazines

   ?

   _______  _______  =  _______

   The bookshop has ________ magazines.

   b. There are 1,493 women’s magazines and the rest are sports magazines. How many sports magazines does the bookshop have?

   magazines
   ⇓
   women’s magazines  ? sports magazines

   _______  _______  =  _______

   The bookshop has ________ sports magazines.
Solve. Use bar models to help you.

3. Ray’s rope is 1,452 centimeters long. Hannah’s rope is 379 centimeters longer than Ray’s rope.
   a. How long is Hannah’s rope?

   Ray
   \[ \text{cm} \]
   \[ \text{cm} \]
   Hannah
   \[ ? \text{ cm} \]

   _______ \[ \text{cm} \] = _______

   Hannah’s rope is ________ centimeters long.

   b. Ray uses 645 centimeters of his rope. How long is his remaining rope?

   \[ \text{cm} \]
   \[ \text{cm} \]
   \[ ? \text{ cm} \]

   _______ \[ \text{cm} \] = _______

   Ray’s remaining rope is ________ centimeters long.
Practice 2 Real-World Problems: Addition and Subtraction

Solve. Draw bar models to help you.

Example

Janice has 1,458 stamps.
She has 396 fewer stamps than Ben.

a. How many stamps does Ben have?

\[
\begin{align*}
\text{Janice} & \quad 1,458 \\
\text{Ben} & \quad 396 \\
\text{Ben} & \quad ?
\end{align*}
\]

\[
1,458 + 396 = 1,854
\]

Ben has 1,854 stamps.

b. How many stamps do they have in all?

\[
\begin{align*}
\text{Ben} & \quad 1,854 \\
\text{Janice} & \quad 1,458 \\
\text{They both} & \quad ?
\end{align*}
\]

\[
1,458 + 1,854 = 3,312
\]

They have 3,312 stamps in all.
Solve. Draw bar models to help you.

1. There are 1,287 men at a baseball game. There are 879 fewer women than men at the game.
   a. How many women are at the game?
   
   \[
   \begin{array}{c}
   \text{Men} \\
   \hline
   1,287\\
   \end{array}
   \quad \begin{array}{c}
   \text{Women} \\
   \hline
   \end{array}
   = \begin{array}{c}
   \text{Total} \\
   \hline
   \end{array}
   \]

   \[
   \text{1,287} - \text{879} = \text{408}
   \]

   408 women are at the game.

   b. How many adult spectators are at the game?
   
   \[
   \begin{array}{c}
   \text{Men} \\
   \hline
   1,287\\
   \end{array}
   \quad \begin{array}{c}
   \text{Women} \\
   \hline
   408\\
   \end{array}
   = \begin{array}{c}
   \text{Total} \\
   \hline
   \end{array}
   \]

   \[
   \text{1,287} + \text{408} = \text{1,695}
   \]

   1,695 adult spectators are at the game.
Solve. Draw bar models to help you.

2. A school sets aside $4,756 for its athletic fund. It sets aside $1,297 less for its library fund.
   a. How much money is in the library fund?

   
   
   
   
   $_________ is in the library fund.

   b. $948 is spent from the library fund. How much money is left?

   
   
   
   
   $_________ is left in the library fund.
Solve. Draw bar models to help you.

3. The school clerk prints 635 newsletters on Monday. She prints 96 fewer newsletters on Wednesday.
   a. How many newsletters does she print on Wednesday?
   
   b. How many newsletters does she print in all?
Solve. Draw bar models to help you.
4. Mr. Tuzamoto’s factory makes 1,793 toys each day. It makes 157 more toys than Ms. Jefferson’s factory.
   a. How many toys does Ms. Jefferson’s factory make each day?

   

Ms. Jefferson’s factory makes _________ toys each day.

b. If Ms. Jefferson’s factory sells 698 toys, how many toys does her factory have left?

    

Ms. Jefferson’s factory has _________ toys left.
A middle school has 3,756 students.
It has 455 fewer students than an elementary school.

a. How many students does the elementary school have?

b. How many students do both schools have in all?
Practice 3  Real-World Problems: Addition and Subtraction

Solve. Draw bar models to help you.

Example

Jake mixes 620 liters of water and 180 liters of syrup to make lemonade. He adds another 145 liters of water to the mixture. How much more water than syrup does he use for the lemonade?

\[
\begin{align*}
620 + 145 &= 765 \\
\text{He uses 765 liters of water.} \\
765 - 180 &= 585 \\
\text{He uses 585 liters more water than syrup.}
\end{align*}
\]
Solve. Draw bar models to help you.

1. A pet store donates 3,500 pounds of dog food to an animal shelter.
   A farm donates 2,500 pounds of dog food at first.
   Later it donates another 2,000 pounds of dog food to the animal shelter.
   How many more pounds of dog food does the farm donate than the pet store?
Write your own real-world problem. Solve. Draw bar models to help you.

The Park Fund raises $2,960. The Playground Fund raises $2,662.

The Park Fund raises $298 more than the Playground Fund.
The Playground Fund raises $298 less than the Park Fund.
The Park Fund and the Playground Fund raise $5,622 in all.

Example

Word problem
The Park Fund raises $2,960. The Playground Fund raises $298 less than the Park Fund. How much does the Playground Fund raise?

Model

Solution

$2,960 - $298 = $2,662

The Playground Fund raises $2,662.
Now you try it!

**Word problem**

**Model**

**Solution**
Look at the cards.

A 318
B 456
C 195

Think of three ways to choose two cards. Find the sum of the two cards.

Example

A and B; 318 + 456 = 774

1. _______ and _______; _______ + _______ = _______

2. _______ and _______; _______ + _______ = _______

Fill in the missing letters.

3. Which two cards give the greatest sum? _______ and _______

4. Which two cards give the least sum? _______ and _______

5. Which two cards give the greatest difference? _______ and _______

6. Which two cards give the least difference? _______ and _______
Put On Your Thinking Cap!

Problem Solving

1. Carlos has been collecting cards since he was 5 years old. He has not thrown away any of his cards. He is now 7 years old. He collected 201 cards last year. He collects 125 cards this year. He has a total of 589 cards now.
   
   a. How many cards did he have in total at the end of last year?
   b. How many cards did he collect when he was 5 years old?

2. Jason, Peter, and Ken hold a garage sale for charity. Jason raises $350. Peter raises $20 more than Jason. Ken raises the same amount as the total amount raised by Jason and Peter. How much money do the three boys raise in all?