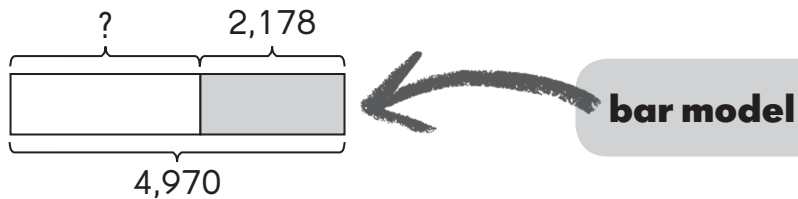## CHAPTER 5 Using Bar Models: Addition and Subtraction

Worksheet 1   Real-World Problems: Addition and Subtraction

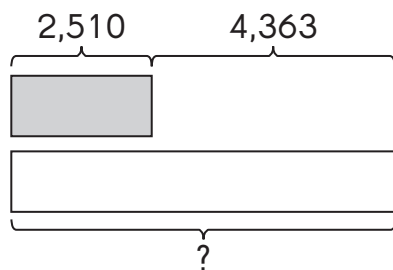**Solve. Use bar models to help you.**

Example

```
        ?        2,178
   [        |        ]  ←  bar model
        4,970
```

[4,970] (−) [2,178] = [2,792]

1.

```
      2,510      4,363
   [       |            ]
   [▨▨▨▨▨]
   [                    ]
             ?
```

[   ] (◯) [   ] = [   ]

2.

1,496   ?

7,000

  ◯   =

3.

4,529   3,728

?

  ◯   =

4.

?   3,898

5,701

  ◯   =
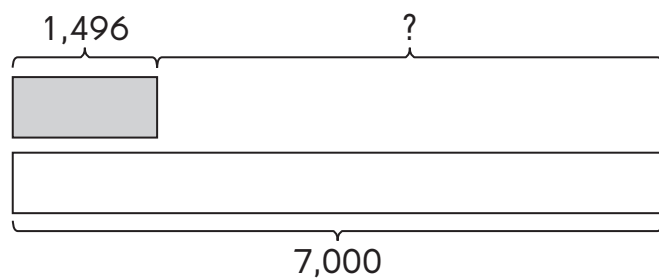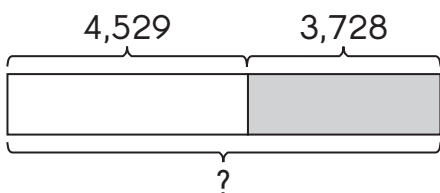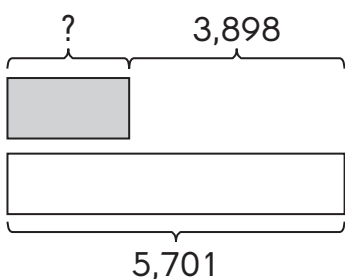
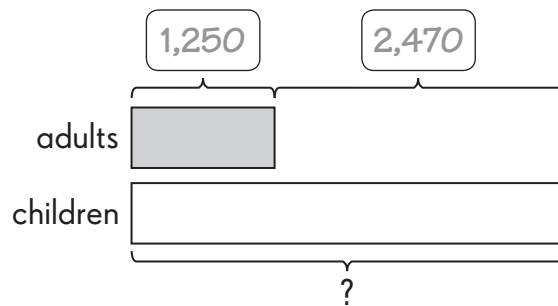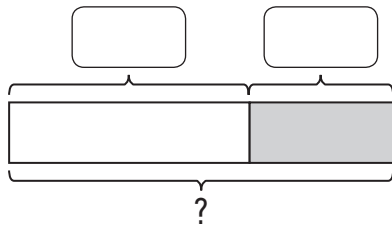**Solve. Use bar models to help you.**

Example

There are 1,250 adults in the zoo.
There are 2,470 more children than adults in the zoo.
How many children are at the zoo?

| 1,250 | | 2,470 |

adults

children

?

1,250 + 2,470 = 3,720
3,720 children are at the zoo.

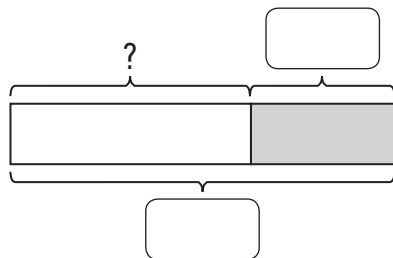**5.** Greg has 4,750 U.S. stamps.
He has 1,758 Canadian stamps.
How many stamps does Greg have in all?

?
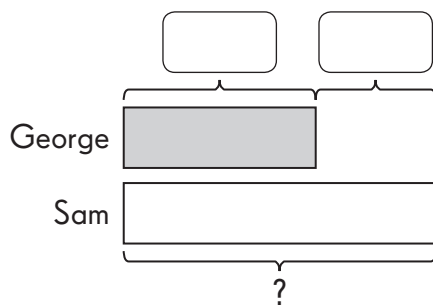
6.   The total number of blackberries and blueberries in a box is 2,000.
There are 897 blackberries.
How many blueberries are there?

7.   Sam sells 576 more toys than George.
George sells 1,293 toys.
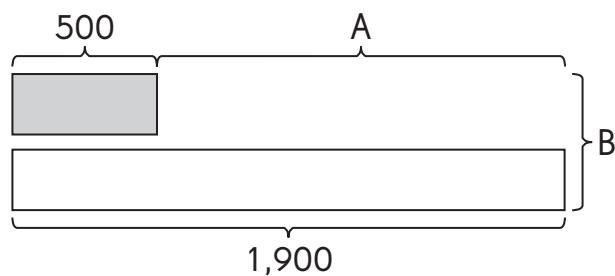How many toys does Sam sell?

Worksheet 2   Real-World Problems: Addition and Subtraction

Solve. Use bar models to help you.

Example

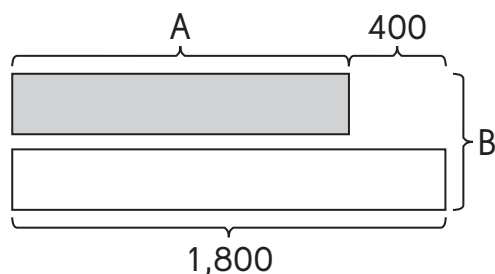```
   500   A
┌──────┬──────────────────────┐ ┐
│░░░░░░│   │ │
├──────┴──────────────────────┤ ├ B
│   │ │
└─────────────────────────────┘ ┘
            1,900
```

**a.**  A = [ 1,900 ] ( − ) [ 500 ] = [ 1,400 ]

**b.**  B = [ 500 ] ( + ) [ 1,900 ] = [ 2,400 ]

**1.**

```
        A          400
┌─────────────┬────────┐ ┐
│░░░░░░░░░░░░░│        │ │
├─────────────┴────────┤ ├ B
│                      │ │
└──────────────────────┘ ┘
        1,800
```

a. A = [____] ( ) [____] = [____]

b. B = [____] ( ) [____] = [____]

2.

700   400

B

A

a. A = ⬭ ◯ ⬭ = ⬭

b. B = ⬭ ◯ ⬭ = ⬭

3.

800   300

B

A
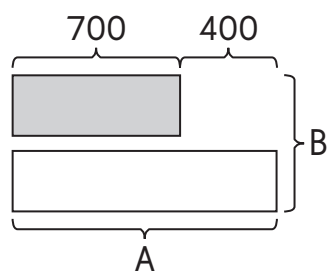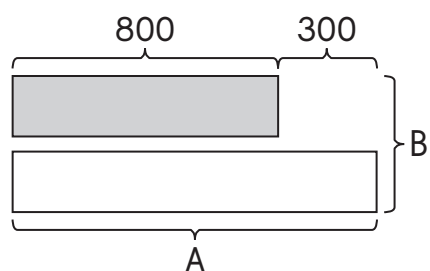
a. A = ⬭ ◯ ⬭ = ⬭

b. B = ⬭ ◯ ⬭ = ⬭

Name: _____ **Date:** _____
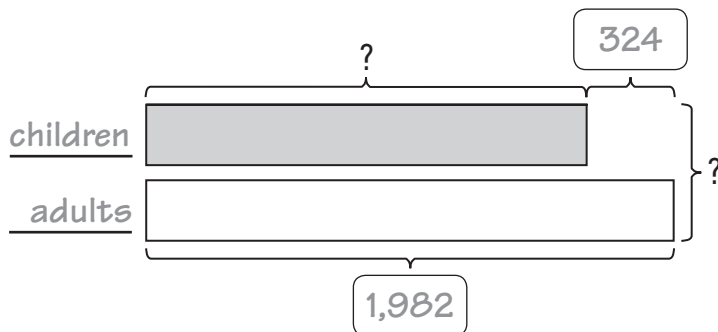
Complete the bar model. Then solve.

Example

There are 1,982 adults at a concert.
There are 324 more adults than children at the concert.
a. How many children are at the concert?
b. How many people are at the concert?

324

?

children

?

adults

1,982

a. $1,982 - 324 = 1,658$
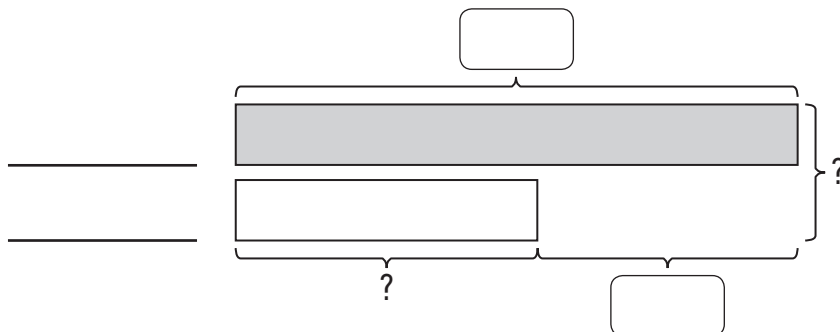1,658 children are at the concert.

b. $1,658 + 1,982 = 3,640$
3,640 people are at the concert.

4. A video game costs $38.
A calculator costs $18 less.
a. What is the cost of the calculator?
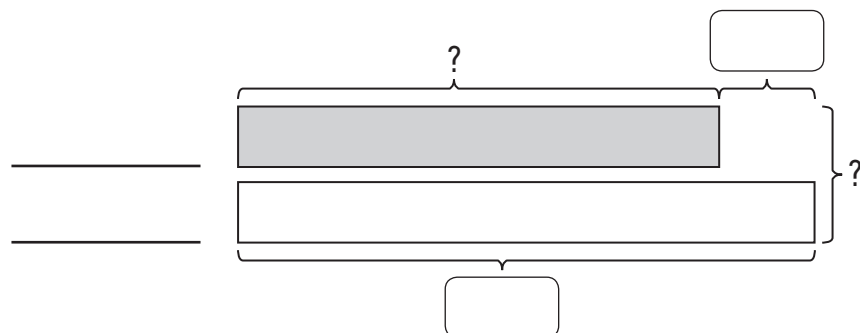**b.** What is the total cost of the two items?

?

?

?

**5.** Sam packs green apples and red apples into a box.
There are 750 red apples.
There are 125 more red apples than green apples.
a. How many green apples does the box have?
b. How many apples does the box have in all?

6. Sam walks from Town A to Town B, then from Town B to Town C.
The distance from Town A to Town B is 750 miles.
The distance between Town B and Town C is 125 miles more than
the distance from Town A to Town B.
a. What is the distance between Town B and Town C?
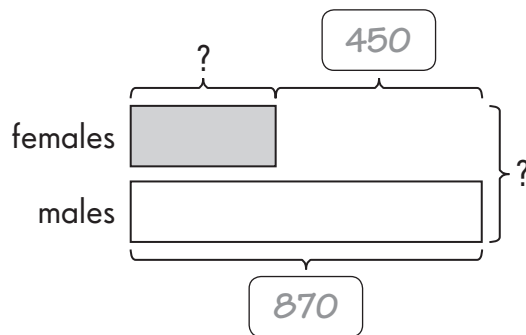**b.** What is the total distance Sam walks from Town A to Town C?
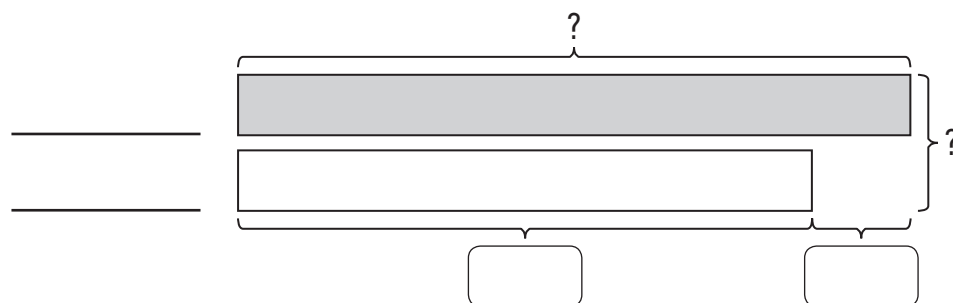
Solve. Use bar models to help you.

Example

A king invites guests to a party.
There are 870 male guests at the party.
There are 450 more male than female guests at the party.
How many guests are at the party?

870 − 450 = 420
There are 420 female guests at the party.

870 + 420 = 1,290
There are 1,290 guests at the party.

7. Justin makes mixed juice using carrots and apples.
The mixed juice contains 270 milliliters of carrot juice.
There is 165 milliliters more apple juice than carrot juice in the mixture.
How much mixed juice does Justin make?

8.   Pedro has some model motorcycles and some model cars.
He has 132 fewer model cars than model motorcycles.
Pedro has 352 model motorcycles. How many model cars and
model motorcycles does Pedro have altogether?