Singapore Math

GRADES 3 - 5

Common Core Aligned Addition & Subtraction Bar Model Student Activity Book

- Summary of Approach
- 14 pages of step by step instruction with examples
- Scaffolding - 3 pages (6 problems) with the bar model already created to help students apply strategy
- 26 addition and subtraction problems for students to solve
- Answer Key included

By Dot Cates

14 pages of Step-by-Step Instruction

3 Pages of Scaffolded Support So Students can Readily Apply Concepts

26 Addition and Subtraction Word Problems

Everything you need to introduce this great strategy for breaking down and solving word problems!

Common Core Aligned Math Standards

Common Core Aligned Addition & Subtraction Bar Model Student Activity Book is aligned with the Math Content Standards for Grades 3-6, as listed below.

Grade 3

Solve problems involving the four operations, and identify and explain patterns in arithmetic.

- CCSS.Math.Content.3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.[3]
- CCSS.Math.Content.3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

Grade 4

Use the four operations with whole numbers to solve problems.

- CCSS.Math.Content.4.OA.A.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Use place value understanding and properties of operations to perform multi-digit arithmetic.

- CCSS.Math.Content.4.NBT.B.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Grade 5

None of the 5th grade standards are directly addressed by the activities in this Common Core Aligned Addition and Subtraction Bar Model Activity Book. However, the activities can provide an excellent introduction or review of solving addition and subtraction word problems for fifth graders.



WHY USE THE BAR MODEL?

- Helps students create a concrete, visual representation to simplify even the most complicated pre-algebraic word problem
- Provides students with a strategy to represent proportion and numerical relationships between elements in the problem
- Encourages students to slow down and tackle word problems methodically and logically, rather than impulsively

Students using the Singapore Math 'Bar Model', are taught to use rectangular bars when they represent relationships between known and unknown mathematical variables. Ultimately, they solve word problems using these rectangular bars, once they have critically thought through the relationship between the mathematical variables, and really considered the question the problem is asking them. Rather than impulsively putting numbers together, students must slow down as they think about sequential steps of the process. They write an answer statement, create bars, fill in the known variables, solve for the unknown and then check to make sure their answer makes sense in the answer statement. With this model, students are soon equipped to solve complicated math problems involving ratios, fractions, percentages, and even pre-algebraic equations.

Aligned with the Common-Core Math Standards, by using a model that allows students to see the number relationship between the variables in the problem, students are armed with a strategy they can apply to much bigger, more complicated problems. The rectangles can easily be drawn, divided, and segmented, to represent small and large numbers and show proportional relationships between variables in a problem.

In this student packet, students are led through three different addition and subtraction problems following each step of the Bar Model method. Then they are given the opportunity to try the method themselves, and scaffolding is provided for the first 6 problems. On the first two pages (4 problems), the bar model is essentially created for them, and the answer statements are written. All they have to do is fill in the numerical variables. The next page (2 problems), the bars are created, allowing students to fill in the remainder of the elements of the problem. For the remainder of the packet (20 problems) students independently follow the sequential steps of the Bar Model method, solving addition and subtraction problems

Read on to see examples of the Bar Model Method.

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much do they earn altogether in a week?

On the next 14 pages, you will see three examples of how to create Bar Models, when numerical relationships in a problem change.

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 1: READ THE WHOLE PROBLEM! It is important that you read the whole problem so you can identify exactly what is being asked of you as a mathematician.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much do they earn altogether in a week?

STEP 2: Write an answer statement. Write an answer statement, leaving a blank for the answer.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much do they earn altogether in a week?

Answer Statement: Together, Jessica and Eric earn $_____ per week mowing lawns.

Steps for Model Drawing:

1. Read the whole problem.

2. Write an Answer Statement, leaving a blank for the answer.

3. Identify the "who" or the "what."

4. Draw a bar model that makes sense.

5. Fill in the numbers you know, and a question mark for what you want to know.

6. Do the Math!

7. Write the answer in your answer statement.

8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 3: **Identify the "who" and the "what" in the problem.** Who are the people involved? What are the items involved? In this case, the 'who' is Eric and Jessica. The 'what' is money earned mowing lawns.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much do they earn altogether in a week?

Eric's Money Jessica's Money

Answer Statement: Together, Jessica and Eric earn $_____ per week mowing lawns.

STEP 4: **Draw a bar model that makes sense.** Think about the who and the what, the relationship between them.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much do they earn altogether in a week?

Eric's Money Jessica's Money

Answer Statement: Together, Jessica and Eric earn $_____ per week mowing lawns.

Steps for Model Drawing:

1. Read the whole problem.

2. Write an Answer Statement, leaving a blank for the answer.

3. Identify the "who" or the "what."

4. Draw a bar model that makes sense.

5. Fill in the numbers you know, and a question mark for what you want to know.

6. Do the Math!

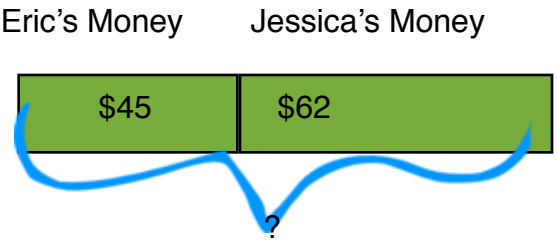
7. Write the answer in your answer statement.

8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 5: **Fill in the numbers you know, and a question mark for what you want to know.** Think about the information that is given in the problem, and identify the information you want to know to solve the problem.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much do they earn altogether in a week?

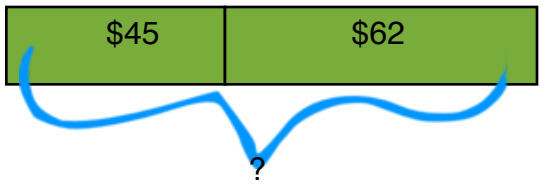


Answer Statement: Together, Jessica and Eric earn $_____ per week mowing lawns.

STEP 6: **Do the Math!** Look at the bar model you have set up, and determine what operation you must do to solve for the question mark.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much do they earn altogether in a week?



$$\begin{array}{r} 45 \\ +62 \\ \hline 107 \end{array}$$

Answer Statement: Together, Jessica and Eric earn $_____ per week mowing lawns.

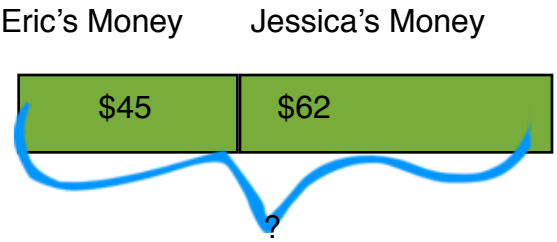
Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 7: Write the answer in your answer statement. In this case, 45 + 62 = 107, so they earn 107 dollars in a week. There is no additional step to complete.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much do they earn altogether in a week?



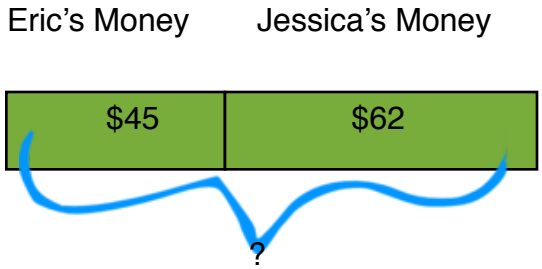
45
+62
107

Answer Statement: Together, Jessica and Eric earn $107 per week mowing lawns.

STEP 8: Reread the problem and your final answer statement and make sure your answer makes sense. In rereading the problem and the answer statement, the answer makes sense.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much do they earn altogether in a week?



45
+62
107

Answer Statement: Together, Jessica and Eric earn $__107__ per week mowing lawns.

What if the Problem Were Worded Slightly Differently? What Then?

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much more does Jessica earn than Eric in a week?

The Bar Model Would Look Slightly Different. Let's try it on the next few pages.

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 1: READ THE WHOLE PROBLEM! It is important that you read the whole problem so you can identify exactly what is being asked of you as a mathematician.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much more does Jessica earn than Eric in a week?

STEP 2: Write an answer statement. Write an answer statement, leaving a blank for the answer.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much more does Jessica earn than Eric in a week?

Answer Statement: Jessica earns $_____ more than Eric each week.

Steps for Model Drawing:

1. Read the whole problem.

2. Write an Answer Statement, leaving a blank for the answer.

3. Identify the "who" or the "what."

4. Draw a bar model that makes sense.

5. Fill in the numbers you know, and a question mark for what you want to know.

6. Do the Math!

7. Write the answer in your answer statement.

8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 3: **Identify the "who" and the "what" in the problem.** Who are the people involved? What are the items involved? In this case, the 'who' is still Eric and Jessica. The 'what' is still money earned mowing lawns.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much more does Jessica earn than Eric in a week?

Eric's Money

Jessica's Money

Answer Statement: Jessica earns $ _____ more than Eric each week.

STEP 4: **Draw a bar model that makes sense.** In this case, the relationship has changed slightly.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much more does Jessica earn than Eric in a week?

Eric's Money 

Jessica's Money 

Answer Statement: Jessica earns $ _____ more than Eric each week.

Steps for Model Drawing:

1. Read the whole problem.

2. Write an Answer Statement, leaving a blank for the answer.

3. Identify the "who" or the "what."

4. Draw a bar model that makes sense.

5. Fill in the numbers you know, and a question mark for what you want to know.

6. Do the Math!

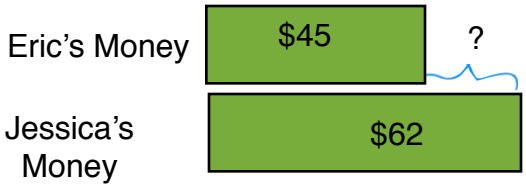
7. Write the answer in your answer statement.

8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 5: Fill in the numbers you know, and a question mark for what you want to know. Think about the information that is given in the problem, and identify the information you want to know to solve the problem.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much more does Jessica earn than Eric in a week?



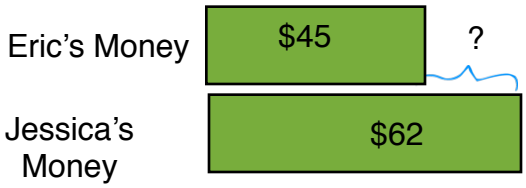
Answer Statement: Jessica earns $ _____ more than Eric each week.

STEP 6: Do the Math! Because the bar model and the relationships have changed slightly, your approach must also change. In this case, we must subtract to find the difference between Eric and Jessica's $.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much more does Jessica earn than Eric in a week?

$$\begin{array}{r} 62 \\ -45 \\ \hline 17 \end{array}$$



Answer Statement: Jessica earns $ _____ more than Eric each week.

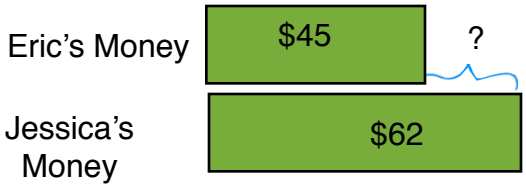
Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 7: Write the answer in your answer statement. In this case, 62 - 45 = 17, so Jessica earns 17 more dollars in a week. There is no additional step to complete.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much more does Jessica earn than Eric in a week?



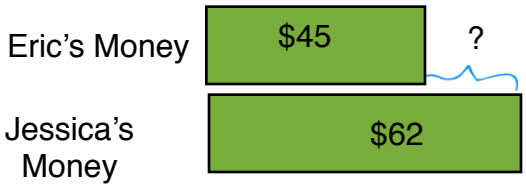
$$\begin{array}{r} 62 \\ -45 \\ \hline 17 \end{array}$$

Answer Statement: Jessica earns $ 17 more than Eric each week.

STEP 8: Reread the problem and your final answer statement and make sure your answer makes sense. In rereading the problem and the answer statement, the answer makes sense.

Example 1:

Eric earns $45 per week mowing lawns. Jessica earns $62 per week mowing lawns. How much more does Jessica earn than Eric in a week?



$$\begin{array}{r} 62 \\ -45 \\ \hline 17 \end{array}$$

Answer Statement: Jessica earns $17 more than Eric each week.

What if the Problem Were Worded A Third Way?

Eric and Jessica earn money each week mowing lawns. Jessica earns $62 per week mowing lawns. If they earn $107 altogether, how much does Eric earn in a week?

The Bar Model Would Be Slightly Different. It's demonstrated on the next few pages.

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 1: READ THE WHOLE PROBLEM! It is important that you read the whole problem so you can identify exactly what is being asked of you as a mathematician.

Example 1:

Eric and Jessica earn money each week mowing lawns. Jessica earns $62 per week mowing lawns. If they earn $107 altogether, how much does Eric earn in a week?

STEP 2: Write an answer statement. Write an answer statement, leaving a blank for the answer.

Example 1:

Eric and Jessica earn money each week mowing lawns. Jessica earns $62 per week mowing lawns. If they earn $107 altogether, how much does Eric earn in a week?

Answer Statement: Eric earns $_____ in a week.

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 3: **Identify the "who" and the "what" in the problem.** Who are the people involved? What are the items involved? In this case, the 'who' is Eric and Jessica. The 'what' is money earned mowing lawns.

Example 1:

Eric and Jessica earn money each week mowing lawns. Jessica earns $62 per week mowing lawns. If they earn $107 altogether, how much does Eric earn in a week?

Eric's Money Jessica's Money

Answer Statement: Eric earns $_____ in a week.

STEP 4: **Draw a bar model that makes sense.** Think about the who and the what, the relationship between them.

Example 1:

Eric and Jessica earn money each week mowing lawns. Jessica earns $62 per week mowing lawns. If they earn $107 altogether, how much does Eric earn in a week?

Eric's Money Jessica's Money

Answer Statement: Eric earns $_____ in a week.

Steps for Model Drawing:

1. Read the whole problem.

2. Write an Answer Statement, leaving a blank for the answer.

3. Identify the "who" or the "what."

4. Draw a bar model that makes sense.

5. Fill in the numbers you know, and a question mark for what you want to know.

6. Do the Math!

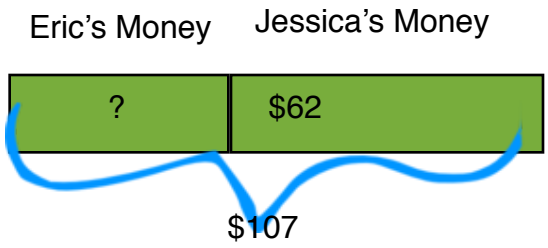
7. Write the answer in your answer statement.

8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 5: **Fill in the numbers you know, and a question mark for what you want to know.** Think about the information that is given in the problem, and identify the information you want to know to solve the problem.

Example 1:

Eric and Jessica earn money each week mowing lawns. Jessica earns $62 per week mowing lawns. If they earn $107 altogether, how much does Eric earn in a week?

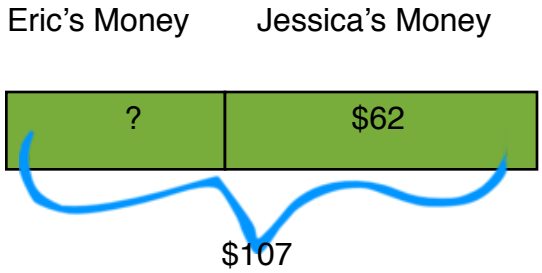


Answer Statement: Eric earns $_____ in a week.

STEP 6: **Do the Math!** Look at the bar model you have set up, and determine what operation you must do to solve for the question mark.

Example 1:

Eric and Jessica earn money each week mowing lawns. Jessica earns $62 per week mowing lawns. If they earn $107 altogether, how much does Eric earn in a week?



$$\begin{array}{r} 107 \\ -62 \\ \hline 45 \end{array}$$

Answer Statement: Eric earns $_____ in a week.

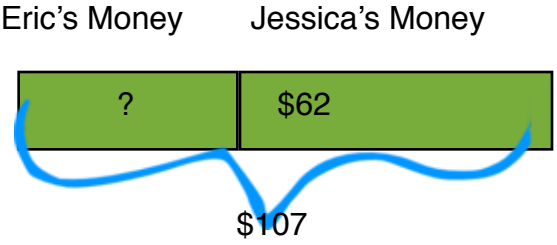
Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

STEP 7: Write the answer in your answer statement. In this case, 107 - 62 = 45, so Eric earns $45 in a week, which determines the difference between the total and Jessica's earnings. There is no additional step to complete.

Example 1:

Eric and Jessica earn money each week mowing lawns. Jessica earns $62 per week mowing lawns. If they earn $107 altogether, how much does Eric earn in a week?



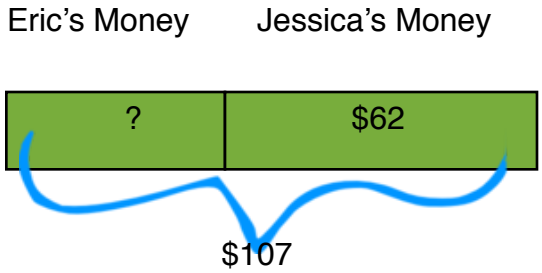
107
-62
45

Answer Statement: Eric earns $_____ in a week.

STEP 8: Reread the problem and your final answer statement and make sure your answer makes sense. In rereading the problem and the answer statement, the answer makes sense.

Example 1:

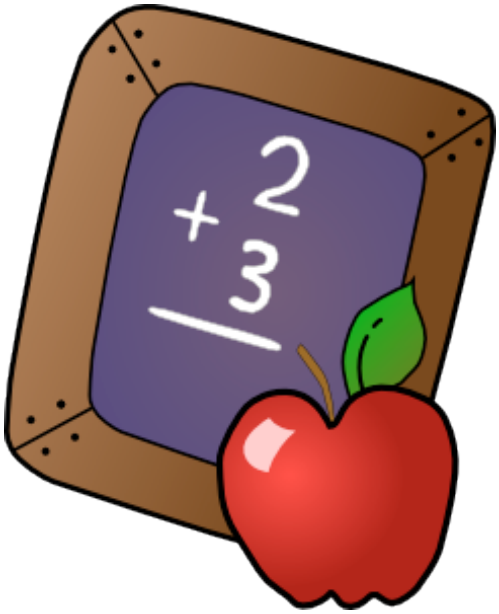
Eric and Jessica earn money each week mowing lawns. Jessica earns $62 per week mowing lawns. If they earn $107 altogether, how much does Eric earn in a week?



107
-62
45

Answer Statement: Eric earns $ 45 in a week.

Try it out!

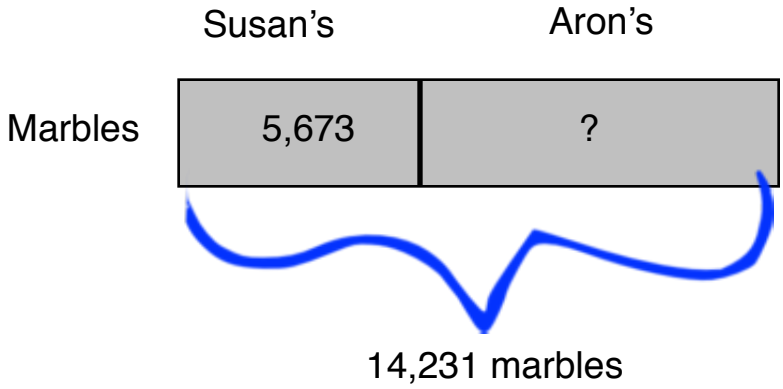


On the next two pages, the problems are set up for you, and provide you with some support as you try out this new method for tackling word problems! It's up to you to solve them!

Steps for Model Drawing:

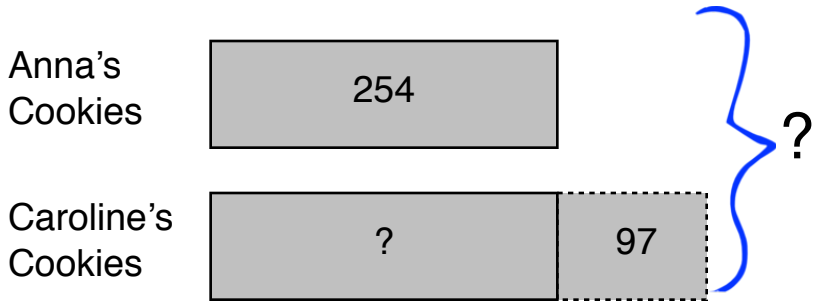
1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

1. Aron and Susan each brought their marble collections to school. Altogether they had 14,231 marbles. If Susan had 5,673 marbles, how many did Aron have?



Answer Statement: Aron has _____ marbles.

2. Anna and Caroline baked cookies. Anna baked 254. Caroline baked 97 more than Anna. How many did they bake in all?

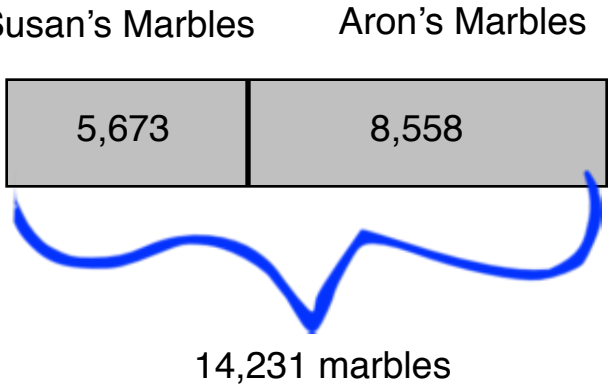


Answer Statement: They baked _____ altogether.

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

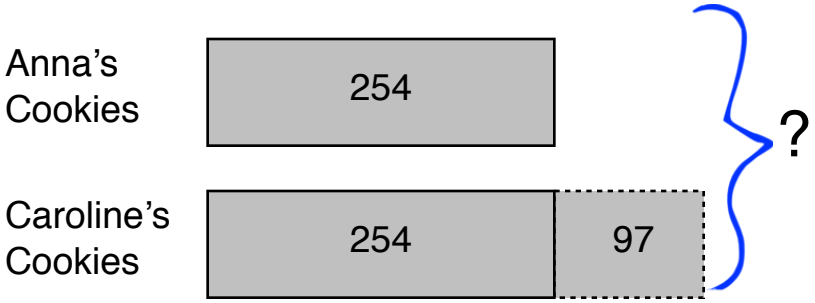
1. Aron and Susan each brought their marble collections to school. Altogether they had 14,231 marbles. If Susan had 5,673 marbles, how many did Aron have?



14,231
-5,673
8,558

Answer Statement: Aron has 8,558 marbles.

2. Anna and Caroline baked cookies. Anna baked 254. Caroline baked 97 more than Anna. How many did they bake in all?



254
254
+ 97
605

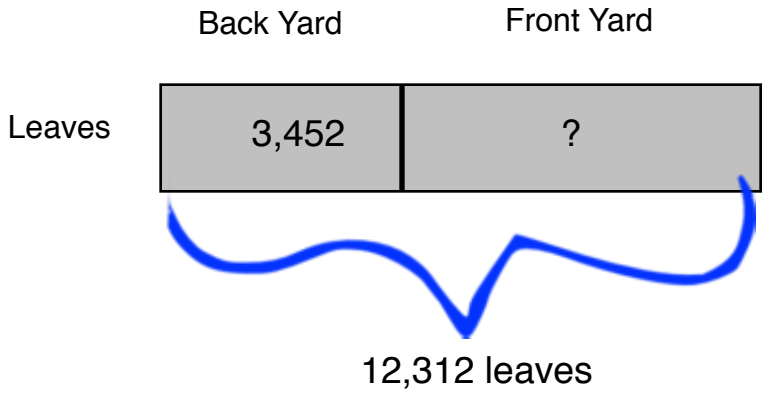
Answer Statement: They baked 605 cookies altogether.

KEY

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

3. Sarah has 3,452 leaves in her backyard. If 12,312 leaves have fallen in her front yard and her backyard, how many have fallen in her front yard



Answer Statement: _____ leaves have fallen in her front

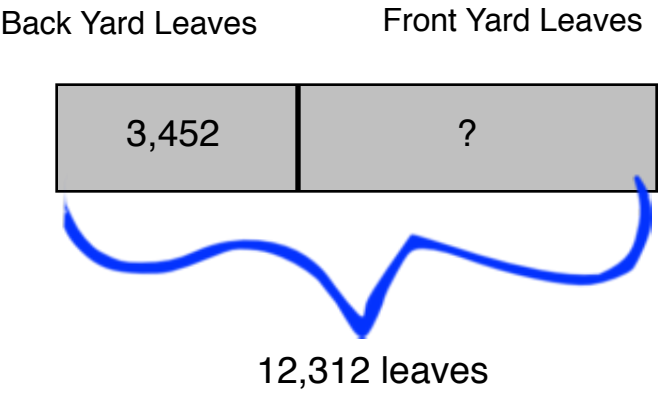
4. Meredith wore 16 different headbands over the course of a week. Julia wore 12 more than Meredith. How many did they wear altogether?

Answer Statement: They wore _____ headbands altogether.

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

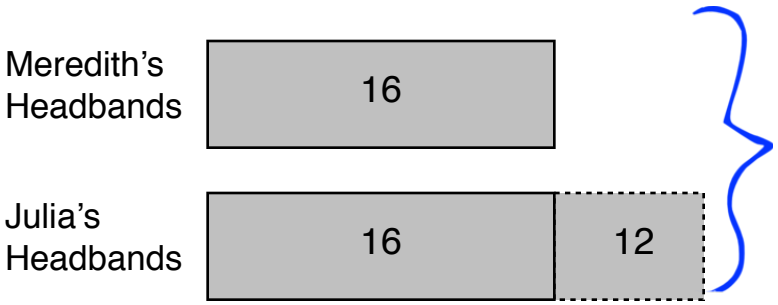
3. Sarah has 3,452 leaves in her backyard. If 12,312 leaves have fallen in her front yard and her backyard, how many have fallen in her front yard?



12,312
- 3,452
8,860

Answer Statement: 8,860 leaves have fallen in her front yard.

4. Meredith wore 16 different headbands over the course of a week. Julia wore 12 more than Meredith. How many did they wear altogether?

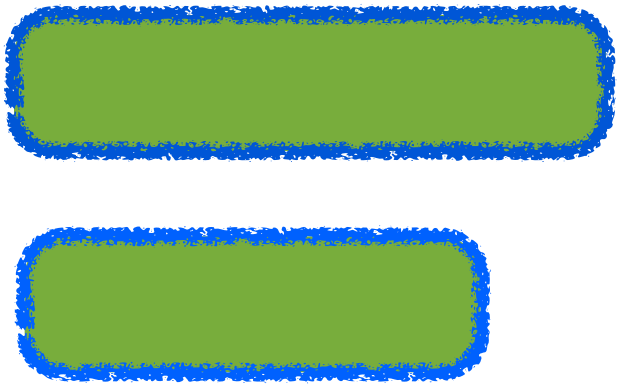


16
16
+ 12
44

Answer Statement: They wore 44 headbands altogether.

KEY

NOW... Just the bar model!



On the next page, the bars of the bar model have been created for you, but you need to follow the steps of the Bar Model Method to create the answer statement, set up the bar model, and solve the problems!

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

5. Elisabeth has 353 math problems to solve today. This morning she solved 201. How many more math problems does she need to solve this afternoon?

Answer Statement:

6. Oliver has a collection of red and blue trains. If he has 85 blue trains and 193 trains in all, how many red trains does he have?

Answer Statement:

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
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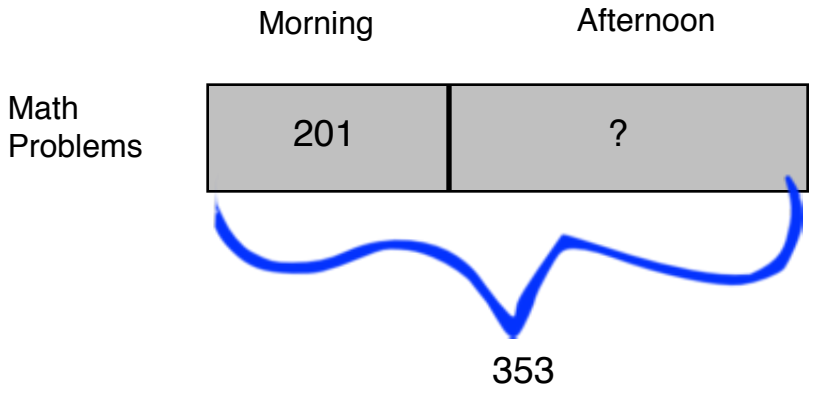
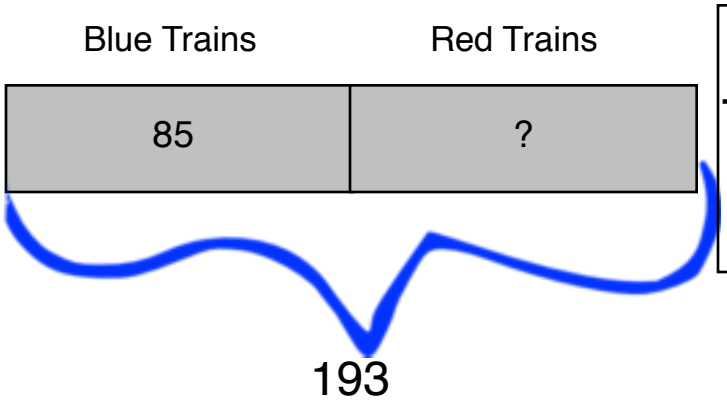


$$\begin{array}{r} 353 \\ -\ 201 \\ \hline 152 \end{array}$$

Answer Statement: Elisabeth has __152____ problems to solve this afternoon.

6. Oliver has a collection of red and blue trains. If he has 85 blue trains and 193 trains in all, how many red trains does he have?



$$\begin{array}{r} 193 \\ -\ 85 \\ \hline 108 \end{array}$$

Answer Statement: Oliver has _108_ red trains.

KEY

You are on your own! Good Luck!

The next ten pages have problems for you to work through independently. Each page has two word problems, but also lists the Model Drawing Steps so you can follow them sequentially.

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

7. Marcos made 436 donuts. Michael made 891 donuts. How many more donuts did Michael make than Marcos?

Answer Statement:

8. David ate 93 raisins. Andrew ate 56 more raisins than David. How many raisins did they eat together?

Answer Statement:

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
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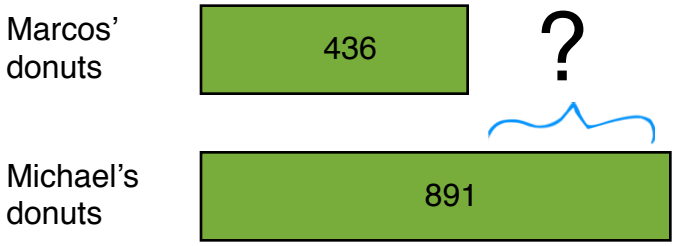
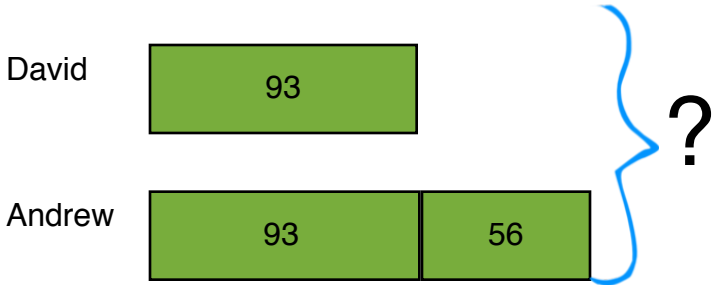



```
  891
 -239
  455
```

Answer Statement: Michael made 455 more donuts than Marcos.

8. David ate 93 raisins. Andrew ate 56 more raisins than David. How many raisins did they eat together?




```
  93
  93
 +56
 242
```

Answer Statement: David and Andrew ate 242 raisins altogether.

KEY

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

9. Erin counted 487 tulips in her garden. Kelsey counted 365 tulips in her garden. How many tulips did the children count in their gardens in all?

Answer Statement:

10. There were 333 children at the movies. Of those, 219 were girls. How many more girls than boys were at the movies?

Answer Statement:

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
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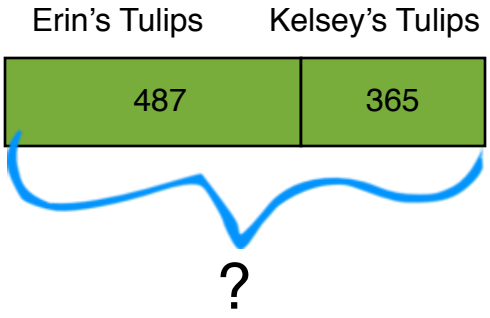
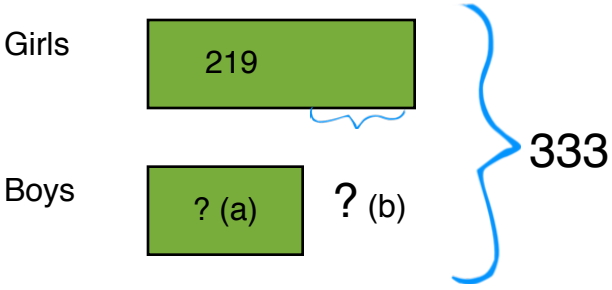



```
  487
+365
  852
```

Answer Statement: They counted 852 tulips in all.

10. There were 333 children at the movies. Of those, 219 were girls. How many more girls than boys were at the movies?




```
(a)  333
    -219
     114
```

```
(b)  219
    -114
     105
```

Answer Statement: There were 105 more girls than boys at the movies.

KEY

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

11. Sarah and Mike both own bakeries. Sarah has 1,467 rolls at her bakery. She has 572 more rolls than Mike. How many rolls does Mike have at his bakery?

Answer Statement:

12. Anya has 876 crayons in her art kit. She has 149 more crayons than her friend Tracy does. How many crayons does Tracy have? How many crayons do the girls have altogether?

Answer Statement:

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
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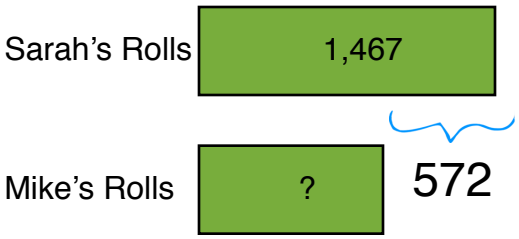
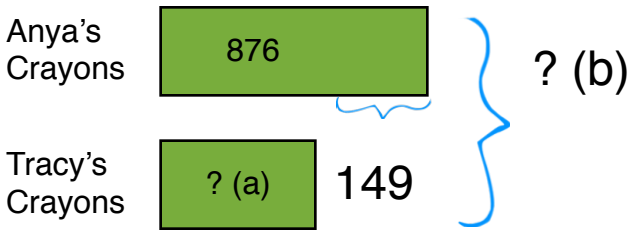


1,467
- 572
895

Answer Statement: Mike has 895 rolls at his bakery.

12. Anya has 876 crayons in her art kit. She has 149 more crayons than her friend Tracy does. How many crayons does Tracy have? How many crayons do the girls have altogether?



(a) 876
-149
727

(b) 876
+727
1,603

Answer Statement: Maria has 727 crayons.
The girls have 1,603 crayons together.

KEY

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
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5. Fill in the numbers you know, and a question mark for what you want to know.
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13. A store sold 986 newspapers in the morning, 456 newspapers in the afternoon, and 271 newspapers in the evening. How many newspapers did the store sell altogether that day?

Answer Statement:

14. Mary's book has 325 pages. Erika's book has 1,932 more pages than Mary's book. How many pages are there in the two books altogether?

Answer Statement:

Steps for Model Drawing:

1. Read the whole problem.
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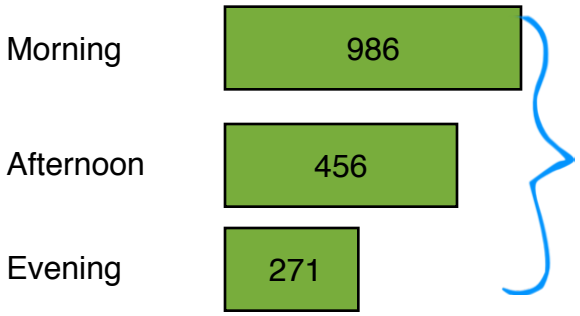
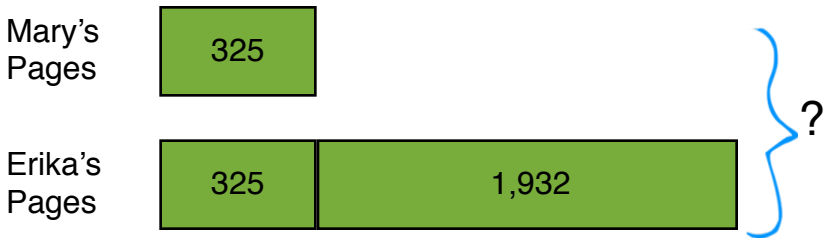


986
456
+ 271
1,713

Answer Statement: The store sold 1,713 newspapers altogether.

14. Mary's book has 325 pages. Erika's book has 1,932 more pages than Mary's book. How many pages are there in the two books altogether?



325
325
+1,932
2,582

Answer Statement: The books have 2,582 pages in all.

KEY

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
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7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

15. Luella has $203. Julia has $87 less than Luella. How much money do they have together?

Answer Statement:

16. Iden has 495 toy cars. Breyton has 728 more toy cars than Iden. How many toy cars do they have altogether?

Answer Statement:

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
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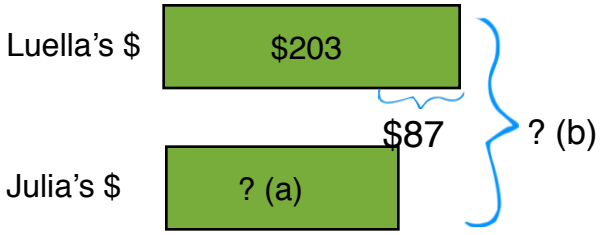
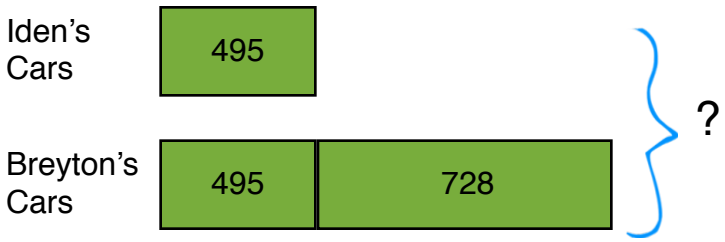


(a) 203	(b) 203
- 87	- 116
116	**$319**

Answer Statement: The girls have $319 altogether.

16. Iden has 495 toy cars. Breyton has 728 more toy cars than Iden. How many toy cars do they have altogether?



495
495
+728
1,718

Answer Statement: The boys have 1,718 cars in all.

KEY

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
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6. Do the Math!
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8. Reread the problem and your final answer statement, and make sure your answer makes sense.

17. There are 893 girls in a school. There are 456 fewer girls than boys in the school. How many children attend the school?

Answer Statement:

18. Juna bought some grapes at the grocery store. Angelica bought 478 grapes. If the girls bought 734 grapes altogether, how many grapes did Juna buy?

Answer Statement:

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
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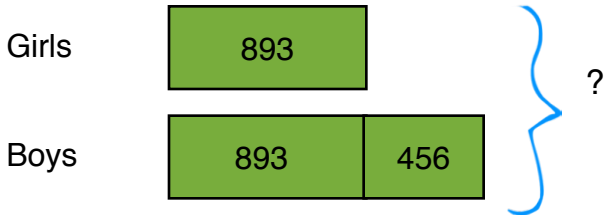
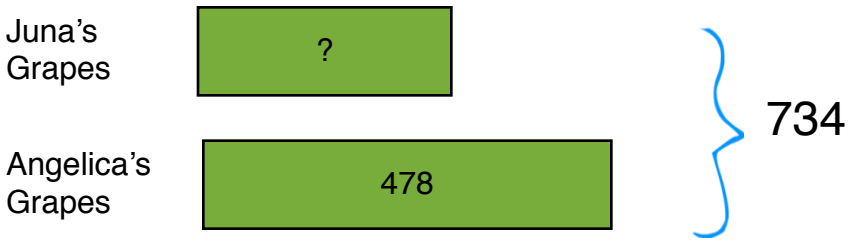


893
456
+ 893
2,242

Answer Statement: There are 2,242 children who attend the school.

18. Juna bought some grapes at the grocery store. Angelica bought 478 grapes. If the girls bought 734 grapes altogether, how many grapes did Juna buy?



734
- 478
256

Answer Statement: Juna bought 256 grapes.

KEY

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

19. Julia used 894 sprinkles while decorating cookies. She used 342 more sprinkles than Oliver. How many sprinkles did they use altogether?

Answer Statement:

20. Christine has $86. Bonnie has twice as much money as Christine. How much money do they have altogether?

Answer Statement:

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
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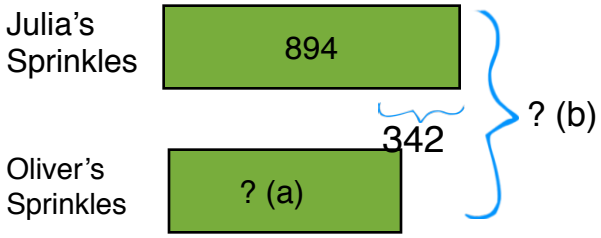

(a) 894 − 342 = **552**

(b) 894 + 552 = **1,446**

Answer Statement: They used 1,446 sprinkles altogether.

20. Christine has $86. Bonnie has twice as much money as Christine. How much money do they have altogether?

86
86
+86
258

Answer Statement: The girls have $258 in all.

KEY

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
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6. Do the Math!
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8. Reread the problem and your final answer statement, and make sure your answer makes sense.

21. Wayne and Bertha saw 432 deer on Thursday, 653 deer on Friday, and 798 deer on Saturday. How many deer did they see in all?

Answer Statement:

22. Marielle received 87 birthday gifts for her 5th birthday, and 54 birthday gifts for her 6th birthday. How many more gifts did she receive for her 5th birthday?

Answer Statement:

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
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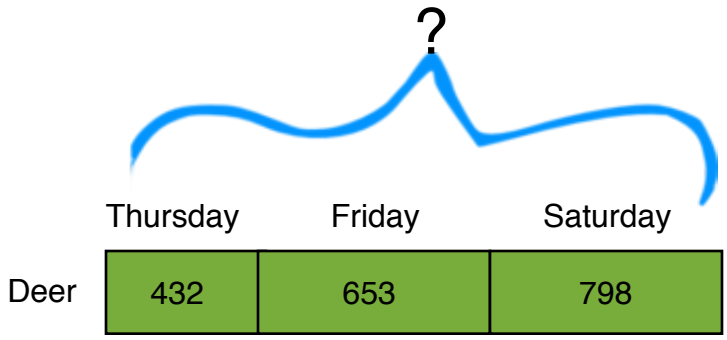
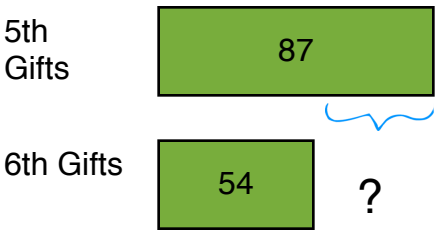



```
  432
  653
+ 798
-----
1,883
```

Answer Statement: They saw 1,883 deer.

22. Marielle received 87 birthday gifts for her 5th birthday, and 54 birthday gifts for her 6th birthday. How many more gifts did she receive for her 5th birthday?




```
 87
- 54
----
33
```

Answer Statement: Marielle received 33 more gifts for her 5th birthday.

KEY

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

23. Maggie has 4,536 stamps in her stamp collection. Thalia has 2,341 less stamps than Maggie. How many stamps does Thalia have? How many stamps do the girls have altogether?

Answer Statement:

24. Debbie took 15,324 steps on her run yesterday. Today's run, she took 19,742 steps. How many more steps did she take during today's run?

Answer Statement:

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
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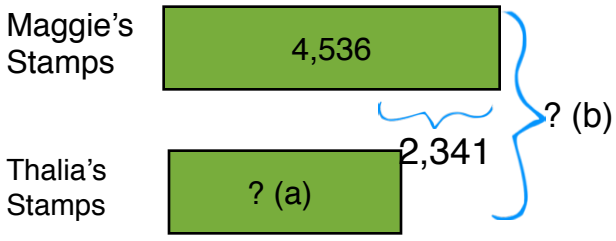
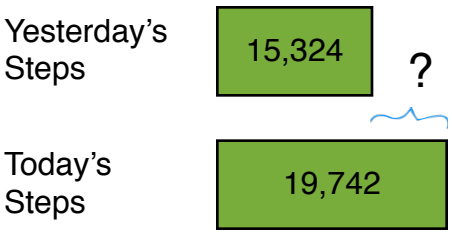


(a)
4,536
- 2,341
2,195

(b)
2,195
+ 4,536
6,731

Answer Statement: Thalia has 2,195 stamps.
They have 6,731 stamps altogether.

24. Debbie took 15,324 steps on her run yesterday. Today's run, she took 19,742 steps. How many more steps did she take during today's run?



19,742
-15,324
4,418

Answer Statement: Debbie took 4,418 more steps during today's run.

KEY

Steps for Model Drawing:

1. Read the whole problem.
2. Write an Answer Statement, leaving a blank for the answer.
3. Identify the "who" or the "what."
4. Draw a bar model that makes sense.
5. Fill in the numbers you know, and a question mark for what you want to know.
6. Do the Math!
7. Write the answer in your answer statement.
8. Reread the problem and your final answer statement, and make sure your answer makes sense.

25. Elspeth saw 43,214 fireflies on Thursday and 19,324 fireflies on Saturday. How many more fireflies did she see on Thursday? How many fireflies did she see in all?

Answer Statement:

26. Douglas collected 5,634 eggs on Tuesday and twice as many eggs on Thursday. How many eggs did he collect in all?

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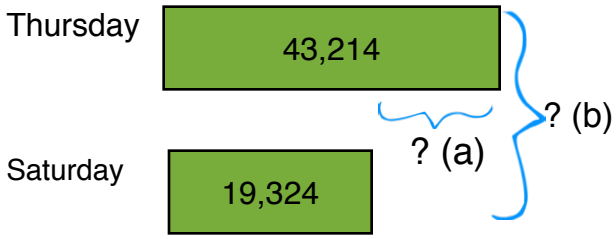

(a)
43,214
- 19,324
23,890

(b)
43,214
+ 19,324
62,538

Answer Statement:
Elspeth saw 23,890 more fireflies Thursday.
She saw 62,538 fireflies altogether.

26. Douglas collected 5,634 eggs on Tuesday and twice as many eggs on Thursday. How many eggs did he collect in all?

5,634
5,634
+5,634
16,902

Answer Statement: Douglas collected 16,902 eggs in all.

KEY