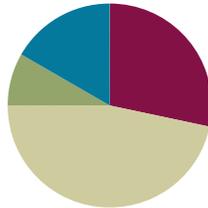


## Lesson 4

Objective: Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones.

### Suggested Lesson Structure

|                       |                     |
|-----------------------|---------------------|
| ■ Application Problem | (5 minutes)         |
| ■ Fluency Practice    | (17 minutes)        |
| ■ Concept Development | (28 minutes)        |
| ■ Student Debrief     | (10 minutes)        |
| <b>Total Time</b>     | <b>(60 minutes)</b> |

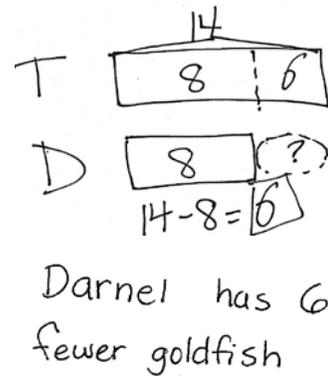


### Application Problem (5 minutes)

Tamra has 14 goldfish. Darnel has 8 goldfish. How many fewer goldfish does Darnel have than Tamra?

Note: Today’s Application Problem presents a *compare with difference unknown* problem type. Continue to ask students the following questions:

- Can you draw something?
- What can you draw?
- What does your drawing show you that can help answer the question?



### Fluency Practice (17 minutes)

- Grade 1 Core Fluency Sprint **1.OA.6** (10 minutes)
- Digit Detective **1.NBT.2** (4 minutes)
- Tens and Ones **1.NBT.4** (3 minutes)

**Grade 1 Core Fluency Sprint (10 minutes)**

Materials: (S) Core Fluency Sprints (Lesson 3)

Note: Based on the needs of the class, select a Sprint from yesterday's materials. There are several possible options available.

1. Re-administer the Sprint from the day before.
2. Administer the next Sprint in the sequence.
3. Differentiate. Administer two different Sprints. Simply have one group do a counting activity on the back of the Sprint while the other Sprint is corrected.

Hopefully, the daily Sprints and Practice Sets are helping students to make good progress toward mastering the required Core Fluency for Grade 1. Support students who regularly finish fewer than half of the problems on a Sprint. Take note of the problem types that slow them down. Perhaps send the next day's Sprint home with them the night prior to administration. Awareness of a student's weak spots facilitates targeted support from within the learning community. For example, a volunteer can be charged with helping a certain student gain fluency with subtracting 3 from numbers within 10.

**Digit Detective (4 minutes)**

Materials: (T/S) Personal white board

Note: This activity reviews place value for two-digit numbers to 100, which was introduced in the previous lesson. Allow students to use their personal white boards to record the mystery numbers as needed.

Write a number on your personal white board, but do not show students.

T: The digit in the tens place is 2. The digit in the ones place is 1. What's my number?

S: 21.

T: What's the value of the 2? (Pause, and then snap.)

S: 20.

T: What's the value of the 1? (Pause, and then snap.)

S: 1.

T: (Reveal the number.)

Repeat with the following suggested sequence: 12, 45, 54, 63, 87, 78, and 92. Alternate saying the number in the ones place first and saying the number in the tens place first. For the last minute, challenge students with adding or subtracting clues for mystery numbers between 40 and 99 as in the examples below.

T: The digit in the tens place is 1 more than 3. (Pause.) The digit in the ones place is 10 less than 12. Say the number the Say Ten way.

S: 4 tens 2.

T: The digit in the ones place is equal to  $5 + 3$ . The digit in the tens place is equal to  $10 - 5$ . Say the number the Say Ten way.

S: 5 tens 8.

T: (Reveal the number.)

**Tens and Ones (3 minutes)**

Materials: (T) Rekenrek

Note: Reviewing this Module 4 fluency activity prepares students for today’s lesson.

Practice decomposing numbers into tens and ones using the Rekenrek.

- T: (Show 16 on the Rekenrek.) How many tens do you see?
- S: 1.
- T: How many ones?
- S: 6.
- T: Say the number the Say Ten way.
- S: Ten 6.
- T: 1 ten plus 6 ones is...?
- S: 16.

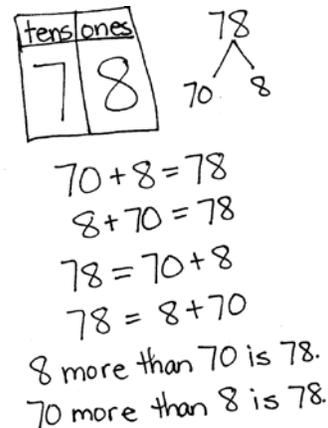
Slide over the next row, and repeat the process for 26 and 36. Continue with the following suggested sequence within 40: 15, 25, 35, 17, 27, 37, 19, 29, and 39.

**Concept Development (28 minutes)**

Materials: (T) Chart paper with a place value chart, Hide Zero cards (Lesson 3 Template 1) (S) Personal white board, place value chart (Lesson 3 Template 2), numeral cards (Lesson 3 Fluency Template)

Gather students in the meeting area in a semicircle formation with their personal white boards.

- T: (Show 78 with Hide Zero cards.) When I pull apart these Hide Zero cards, what two numbers will you see?
- S: 70 and 8.
- T: (Pull apart the Hide Zero cards.) How many tens are in 70? Record the tens in your place value chart.
- S: 7 tens. (Write 7 in the tens place.)
- T: How many ones are here? (Show the 8 card.) Fill in the rest of your place value chart.
- S: 8 ones. (Write 8 in the ones place.)
- T: Say this number as tens and ones.
- S: 7 tens 8 ones.
- T: 7 tens and 8 ones is the same as...?
- S: 78.
- T: On your personal white board, make a number bond that shows the tens and the ones.
- S: (Break apart 78 into 70 and 8.)



Hand-drawn diagrams and equations illustrating the decomposition of 78 into 70 and 8. It includes a place value chart for 78, a number bond for 78, and several addition equations:  $70 + 8 = 78$ ,  $8 + 70 = 78$ ,  $78 = 70 + 8$ , and  $78 = 8 + 70$ . It also includes two sentences: "8 more than 70 is 78." and "70 more than 8 is 78."

T: (Record the number bond on the chart.) Write as many addition sentences as you can that use your number bond.

Circulate and ensure that students are only using the three numbers from this bond: 78, 70, and 8. If students begin writing subtraction sentences, remind them of the directions. The teacher may choose to challenge some students to consider subtraction sentences, but these sentences are not addressed during the course of the lesson.

T: Give me a number sentence that matches this number bond. Start with the part that represents the tens. (Record on the chart as students answer.)

S:  $70 + 8 = 78$ .

T: Start your number sentence with the ones. (Record on the chart.)

S:  $8 + 70 = 78$ .

T: 78 is the same as...?

S: 70 plus 8. (Write  $78 = 70 + 8$  as students answer.)

T: This time, start with the ones. 78 is the same as...?

S: 8 plus 70. (Write  $78 = 8 + 70$  as students answer.)

T: Talk to your partner. What do you notice about the addends in all of these number sentences?

S: 70 is a bigger number than 8. → They always say how many tens and ones make up the total. → You can switch the addends around, and the total is still the same.

T: Let's make some *more than* statements. 8 more than 70 is...? Say the whole sentence.

S: 8 more than 70 is 78. (Record on the chart.)

T: 70 more than 8 is...? Say the whole sentence.

S: 70 more than 8 is 78. (Record on the chart.)

Repeat the process following the suggested sequence: 54, 62, 75, 57, 83, 91, and 100. Use different language to elicit a variety of answers for each number. For example, 54 is the same as \_\_\_\_, 50 plus 4 is \_\_\_\_, 5 tens and 4 ones is \_\_\_\_, 4 more than 50 is \_\_\_\_, and 50 more than 4 is \_\_\_\_.

For the remainder of time, have partners play Combine Tens and Ones. Leave the chart for 78 up on the board as a reference to support students.

- Prepare two decks of numeral cards 0 through 9 for each pair.
- Pick a card from the first deck. This number is placed in the tens place on the place value chart. For example, 7 is drawn and placed in the tens place.



#### NOTES ON MULTIPLE MEANS OF EXPRESSION:

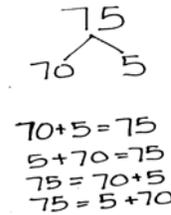
Students may need additional support with the language of “\_\_ is the same as \_\_,” “\_\_ is \_\_ more than \_\_,” etc. Insert a sentence frame into the personal white board, and allow the student to fill in the blanks. Pointing to each word and number as it is read can provide a bridge between the concrete and the abstract.



#### NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

When playing games with students, modeling how the game is played is very important. Oral instructions alone do not help everyone in the class understand how the game is played. Have two students demonstrate Partner A and Partner B roles so that all students see and hear the way the game is played.

- Pick a card from the second deck. This number is placed in the ones place on the place value chart. For example, 5 is drawn and placed in the ones place.
- Partners A and B make a number bond decomposing the number into tens and ones.
- Partner A writes two addition number sentences, such as those in the image from the previous page.
- Partner B writes a *more than* statement that combines tens and ones, such as those in the image on the previous page.
- Switch roles for the next pair of cards drawn.



70 more than 5 is 75.  
 5 more than 70 is 75.  
 75 is 5 more than 70.  
 75 is 70 more than 5.

**Problem Set (10 minutes)**

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to modify the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW approach used for Application Problems.

**Student Debrief (10 minutes)**

**Lesson Objective:** Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

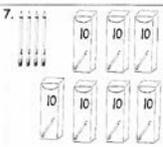
- For Problems 3 and 4, even though the totals use the same digits, the value of each answer is different. Explain why this is so.
- Look at Problem 10. How many tens make up 100? How can you express 100 as all ones?
- Look at Problem 1. If we unbundled one of the tens, how many tens and ones will we have?

- Look at Problems 3, 4, and 5. What do you think are in the baskets? In the bottles? In the bags? What makes you think this?
- How did today’s fluency activities connect with today’s lesson?
- How did you solve the Application Problem? What other problems did this one remind you of?

**Exit Ticket (3 minutes)**

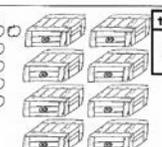
After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students’ understanding of the concepts that were presented in today’s lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 4 Problem Set 1•6

7. 

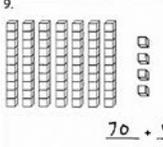
| tens | ones |
|------|------|
| 7    | 4    |

$74 = 70 + 4$   
 $4 \text{ ones} + 7 \text{ tens} = 74$

8. 

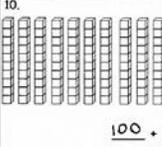
| tens | ones |
|------|------|
| 8    | 6    |

$86 = 80 + 6$   
 $6 \text{ ones} + 8 \text{ tens} = 86$

9. 

| tens | ones |
|------|------|
| 7    | 4    |

$70 + 4 = 74$   
 $7 \text{ tens} + 4 \text{ ones} = 74$

10. 

| tens | ones |
|------|------|
| 10   | 0    |

$100 + 0 = 100$   
 $10 \text{ tens} + 0 \text{ ones} = 100$

11. Complete the sentences to add the tens and ones.

a.  $50 + 6 = 56$                       b.  $80 + 9 = 89$

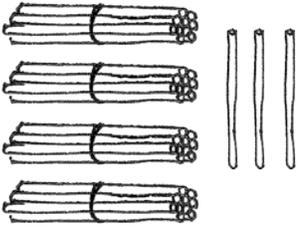
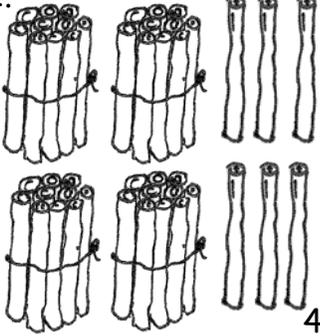
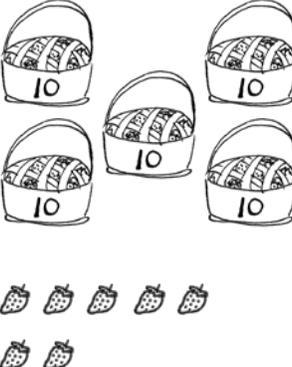
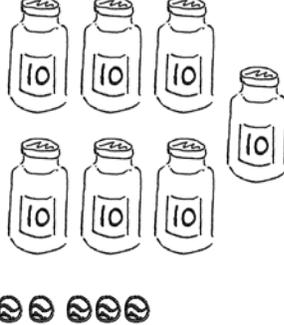
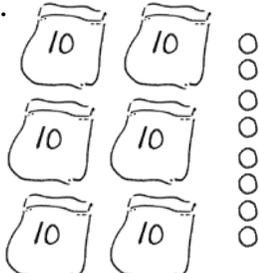
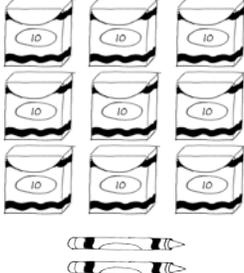
c.  $5 \text{ tens} + 6 \text{ ones} = 56$                       d.  $9 \text{ ones} + 8 \text{ tens} = 89$

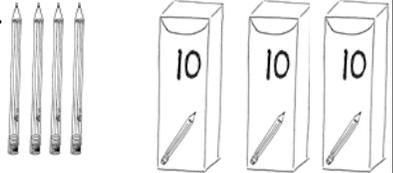
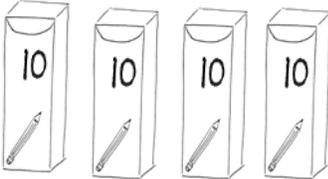
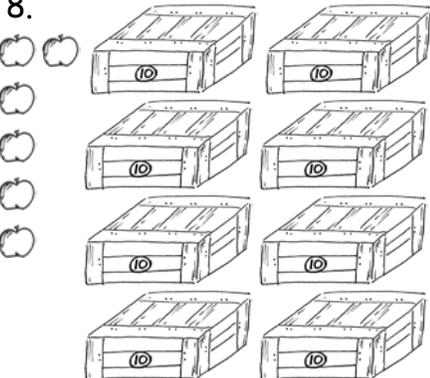
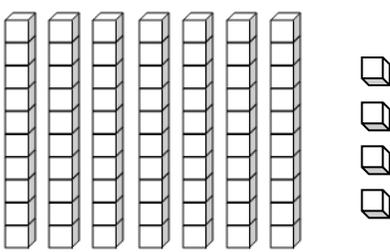
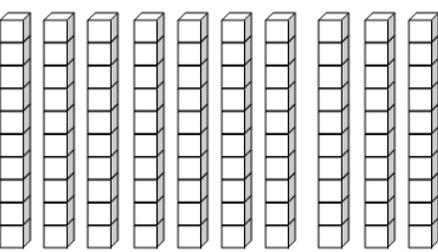
**COMMON CORE** Lesson 4: Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones. **engage<sup>ny</sup>** 6.8.20  
 Date: 5/25/14

Name \_\_\_\_\_

Date \_\_\_\_\_

Count the objects, and fill in the number bond or place value chart. Complete the sentences to add the tens and ones.

|   |  |
|---|--|
| <p>1.</p>  <div style="display: flex; align-items: center; justify-content: center; margin-top: 20px;"> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px;"></div> </div> <p style="text-align: center; margin-top: 20px;">40 and 3 make ____.</p> <p style="text-align: center;">40 + 3 = ____</p>                 | <p>2.</p>  <div style="display: flex; align-items: center; justify-content: center; margin-top: 20px;"> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px;"></div> </div> <p style="text-align: center; margin-top: 20px;">40 and 6 make ____.</p> <p style="text-align: center;">40 + 6 = ____</p>                 |
| <p>3.</p>  <div style="display: flex; align-items: center; justify-content: center; margin-top: 20px;"> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px;"></div> </div> <p style="text-align: center; margin-top: 20px;">57 = ____ + ____</p> <p style="text-align: center;">7 more than 50 is ____.</p>         | <p>4.</p>  <div style="display: flex; align-items: center; justify-content: center; margin-top: 20px;"> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px;"></div> </div> <p style="text-align: center; margin-top: 20px;">75 = ____ + ____</p> <p style="text-align: center;">5 more than 70 is ____.</p>         |
| <p>5.</p>  <div style="display: flex; align-items: center; justify-content: center; margin-top: 20px;"> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px;"></div> </div> <p style="text-align: center; margin-top: 20px;">____ + ____ = ____</p> <p style="text-align: center;">____ tens + ____ ones = ____</p> | <p>6.</p>  <div style="display: flex; align-items: center; justify-content: center; margin-top: 20px;"> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px; margin-right: 10px;"></div> <div style="border: 1px solid black; width: 50px; height: 50px;"></div> </div> <p style="text-align: center; margin-top: 20px;">____ + ____ = ____</p> <p style="text-align: center;">____ tens + ____ ones = ____</p> |

| <p>7.</p>   <table border="1" style="float: right; margin-top: 10px;"> <thead> <tr> <th style="padding: 5px;">tens</th> <th style="padding: 5px;">ones</th> </tr> </thead> <tbody> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> </tbody> </table> <p style="text-align: center; margin-top: 20px;">             _____ + _____ = _____<br/>             _____ tens + _____ ones = _____         </p> | tens | ones |  |  | <p>8.</p>  <table border="1" style="float: right; margin-top: 10px;"> <thead> <tr> <th style="padding: 5px;">tens</th> <th style="padding: 5px;">ones</th> </tr> </thead> <tbody> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> </tbody> </table> <p style="text-align: center; margin-top: 20px;">             _____ + _____ = _____<br/>             _____ tens + _____ ones = _____         </p>                                  | tens | ones |  |   |
|---|------|------|--|--|---|------|------|--|---|
| tens  | ones |      |  |  |   |      |      |  |   |
|   |      |      |  |  |   |      |      |  |   |
| tens  | ones |      |  |  |   |      |      |  |   |
|   |      |      |  |  |   |      |      |  |   |
| <p>9.</p>  <table border="1" style="float: right; margin-top: 10px;"> <thead> <tr> <th style="padding: 5px;">tens</th> <th style="padding: 5px;">ones</th> </tr> </thead> <tbody> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> </tbody> </table> <p style="text-align: center; margin-top: 20px;">             _____ + _____ = _____<br/>             _____ tens + _____ ones = _____         </p>  | tens | ones |  |  | <p>10.</p>  <table border="1" style="float: right; margin-top: 10px;"> <thead> <tr> <th style="padding: 5px;">tens</th> <th style="padding: 5px;">ones</th> </tr> </thead> <tbody> <tr> <td style="height: 40px;"></td> <td style="text-align: center; vertical-align: middle;">0</td> </tr> </tbody> </table> <p style="text-align: center; margin-top: 20px;">             _____ + _____ = _____<br/>             _____ tens + _____ ones = _____         </p> | tens | ones |  | 0 |
| tens  | ones |      |  |  |   |      |      |  |   |
|   |      |      |  |  |   |      |      |  |   |
| tens  | ones |      |  |  |   |      |      |  |   |
|   | 0    |      |  |  |   |      |      |  |   |

11. Complete the sentences to add the tens and ones.

a.  $50 + 6 = \underline{\quad}$

b.  $\underline{\quad} + 9 = 89$

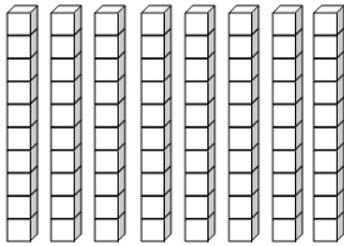
c.  $5 \text{ tens} + \underline{\quad} \text{ ones} = 56$

d.  $9 \text{ ones} + 8 \text{ tens} = \underline{\quad}$

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Count the objects, and fill in the number bond or place value chart. Complete the sentences to add the tens and ones.



| tens | ones |
|------|------|
|      |      |

\_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

\_\_\_\_\_ tens + \_\_\_\_\_ ones = \_\_\_\_\_

2. Complete the sentences to add the tens and ones.

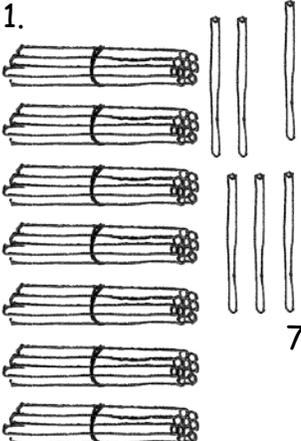
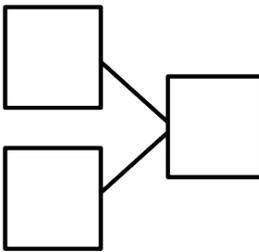
a.  $90 + 2 =$  \_\_\_\_\_

b. 7 tens + \_\_\_\_\_ ones = 79

Name \_\_\_\_\_

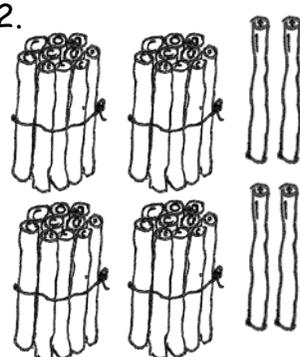
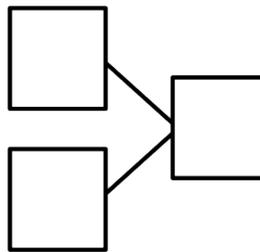
Date \_\_\_\_\_

Count the objects, and fill in the number bond or place value chart. Complete the sentences to add the tens and ones.

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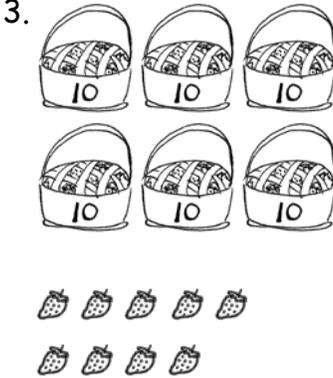
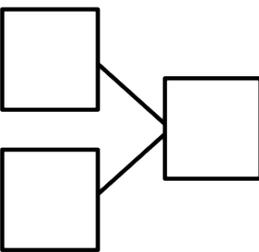
70 and 6 make \_\_\_\_.

$70 + 6 = \underline{\quad}$

2.  

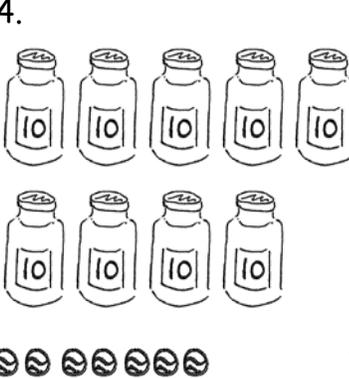
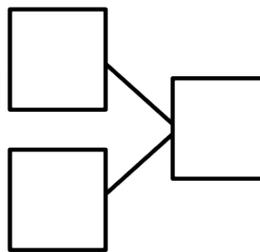
40 and 5 make \_\_\_\_.

$40 + 5 = \underline{\quad}$

3.  

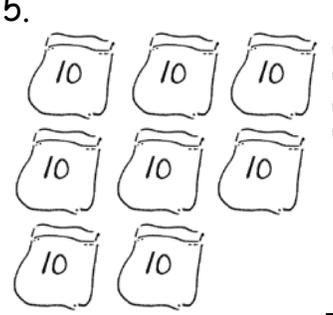
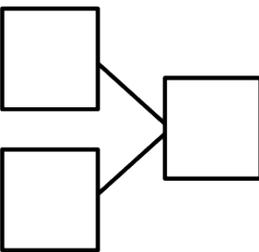
$69 = \underline{\quad} + \underline{\quad}$

9 more than 60 is \_\_\_\_.

4.  

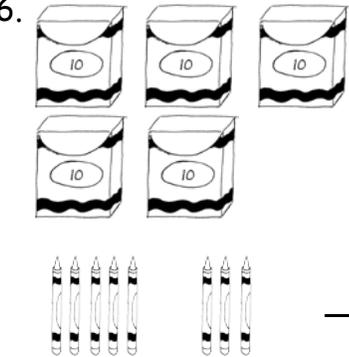
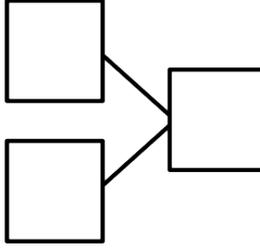
$97 = \underline{\quad} + \underline{\quad}$

7 more than 90 is \_\_\_\_.

5.  

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad}$  tens +  $\underline{\quad}$  ones = \_\_\_\_

6.  

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad}$  tens +  $\underline{\quad}$  ones = \_\_\_\_

7.

| tens | ones |
|------|------|
|      |      |

\_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

\_\_\_\_\_ tens + \_\_\_\_\_ ones = \_\_\_\_\_

8.

| tens | ones |
|------|------|
|      |      |

\_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

\_\_\_\_\_ tens + \_\_\_\_\_ ones = \_\_\_\_\_

9.

| tens | ones |
|------|------|
|      |      |

\_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

\_\_\_\_\_ tens + \_\_\_\_\_ ones = \_\_\_\_\_

10.

| tens | ones |
|------|------|
|      | 0    |

\_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

\_\_\_\_\_ tens + \_\_\_\_\_ ones = \_\_\_\_\_

11. Complete the sentences to add the tens and ones.

a.  $80 + 6 = \underline{\quad}$

b.  $\underline{\quad} + 7 = 57$

c.  $9 \text{ tens} + \underline{\quad} \text{ ones} = 95$

d.  $4 \text{ ones} + 8 \text{ tens} = \underline{\quad}$