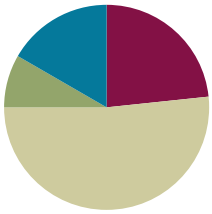
Lesson 35

Objective: Relate subtraction facts involving fives and doubles to corresponding decompositions.

Suggested Lesson Structure

Fluency Practice	(14 minutes)
Application Problem	(5 minutes)
Concept Development	(31 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (14 minutes)

- Cold Call **1.OA.6** (2 minutes)
- Sprint: $n - n$, $n - (n - 1)$ **1.OA.6** (10 minutes)
- Speed Writing (2 minutes)

Cold Call (2 minutes)

Note: This activity addresses the core fluency objective for Grade 1 of adding and subtracting within 10.

Ask questions to practice subtraction situations for $n - n$ or $n - (n - 1)$ problem types. Tell students you will cold call them to say the answer as quickly as possible. Alternate between calling on individual students, the whole class, and groups of students (e.g., only boys or only girls). Use the example dialogue below as a reference.

T: Listen carefully to my question so you will be ready if I call on you. What is 6 – 6? (Pause to provide thinking time.) Everybody.

S: 0.

T: 1 less than 6 is…? (Pause.) Boys?

S: (Only boys.) 5.

T: We know 6 – 6 is 0. What is 6 – 5? (Pause.) Girls.

S: (Only girls.) 1.

Sprint: $n - n$, $n - (n - 1)$ (10 minutes)

Materials: (S) $n - n$, $n - (n - 1)$ Sprint

Note: This activity addresses the core fluency objective for Grade 1 of adding and subtracting within 10.

Speed Writing (2 minutes)

Materials: (S) Personal white board

Note: This activity focuses on the counting sequence to 120 while continuing to develop foundational skills for place value. By writing and whispering, students engage multi-modalities for learning.

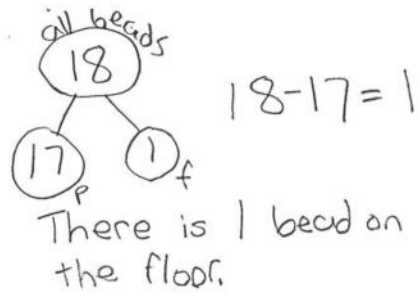
Tell students to write their numbers from 10 to the highest number they know in 1 minute while whisper-counting the Say Ten way.

Application Problem (5 minutes)

The teacher spilled 18 beads on the floor today. A student picked up 17 of the beads. How many beads are still left on the floor? Write a number bond, number sentence, and a statement to share your solution.

Extension: If the 17 beads had been picked up by two students, how many beads might each student have picked up? Make a number bond to show your solution.

Note: This problem enables students to apply the Lesson 34 objective to a number they cannot visualize easily. During the Student Debrief, students consider how tools such as 5-groups and Rekenreks might help them solve the problem.



Concept Development (31 minutes)

Materials: (S) Number bracelet of 10 beads, 5 red and 5 white (see Lesson 8), personal white board

T: Show me 7 the Math Way. How many fingers did you use on your left hand?

S: (Hold up 5 fingers on their left hands and the thumb and index finger on their right hands.) 5.

T: Show me 7 – 5 by hiding your 5.

S: (Hide their left hands.)

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Some students may need to make real life connections to concepts such as doubles and 5-groups. Allow students the opportunity to explore doubles and 5-groups they see in real life (e.g., pairs of shoes, 4-wheelers, legs of a spider, doubles on dominoes, and their fingers).

T: What's the answer?
S: 2.
T: Give me the complete number sentence.
S: 7 minus 5 is 2.
T: Show me your 7 again. Subtract 2 by hiding your 2. The answer is…?
S: 5.
T: Give me the complete number sentence.
S: 7 minus 2 is 5.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Provide students who are developing fluency with math facts a visual tool, such as the addition chart with the doubles facts, for reference until this skill becomes automatic.

Quickly repeat the same process, subtracting 5 and its partner from 6 through 10.

T: Please take out your bracelets and start with 8 beads. (Project 8 – 5.) Use your beads in one movement to show me the answer. Write the number sentence and number bond.
S: (Push 5 beads in one movement away from the set and write 8 – 5 = 3.
T: (Circulate. If students move the beads one, two, three, or four at a time, have students repeat the exercise.)
T: How did you solve this so quickly?
S: I moved just my red beads in a 5-group. → I moved a group of 5 without counting out 1, 2, 3, 4, 5.
T: How did you know how many to push at once?
S: The beads are in groups of 5.
T: Push them back together to have 8, and try this one. (Project 8 – 3.)
S: (Push the 3 white beads away from the set and write 8 – 3 = 5.)
T: What did you push away as a group?
S: The 3 white beads.
T: What did you have left?
S: The 5 red beads.

Repeat the process using the following suggested sequence: 9 – 5, 9 – 4, 7 – 5, and 7 – 2.

T: Great job visualizing larger groups to help you subtract quickly. Now, we will use a different way to visualize, or see, groups to help us subtract. Put your bracelets back together so you have 10 beads total. What two equal parts do you see?
S: 5 and 5.
T: That's right. Remember, facts like 5 + 5 are part of a special group of addition facts. What are they called?
S: Doubles.
T: Starting at 1 + 1, let's recite our doubles facts. Point your fingers together as we say them.

MP.7

T/S: 1 + 1 = 2, 2 + 2 = 4, 3 + 3 = 6, 4 + 4 = 8, 5 + 5 = 10.

T: Doubles can be easy to see, just like 5-groups. Let's see if we can spot which of these subtraction facts are made from doubles. Visualize your doubles facts as we look for them.

MP.7

T: (Project three subtraction expressions: 7 – 3, 8 – 4, and 9 – 2.)

T: Which subtraction expression is splitting up a double? Turn and talk with your partner to decide. Talk about how you know. Write the number sentence and number bond on your paper. (Circulate and listen.)

S: (Discuss with a partner.)

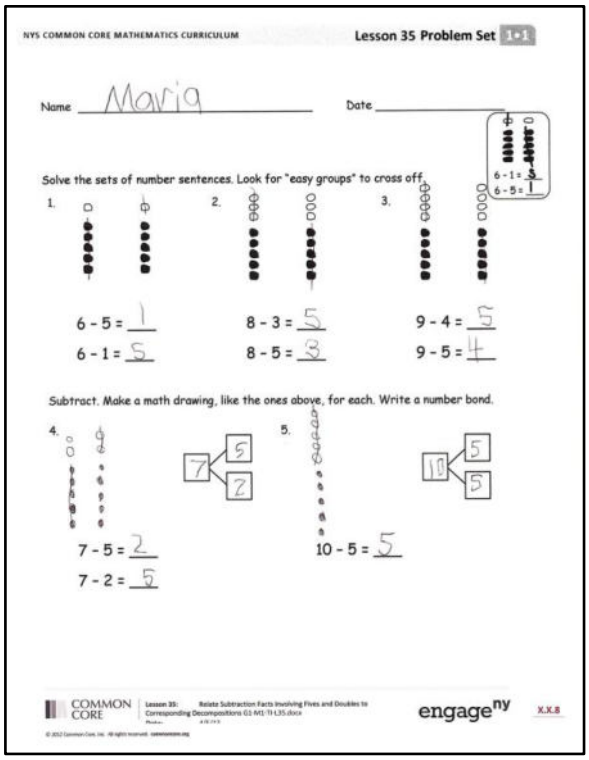
T: I like how you proved your idea to your partner by showing the doubles on your fingers. Try more.

Repeat the process using the following suggested sequence of three sets of expressions:
(a) 5 – 2, 8 – 3, 4– 2; (b) 7 – 4, 6 – 3, 10 – 4;
(c) 8 – 4, 6 – 3, 10 – 5. The last set purposely has three doubles facts as students begin to visualize their doubles and recognize the facts within the subtraction context more quickly.

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 solve these problems using the RDW approach used for Application Problems.

On this Problem Set, most all students begin with Problems 1 through Problem 5 and possibly leave Problems 6 through Problem 11 to the end if they still have time.


NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 35 Problem Set 1•1

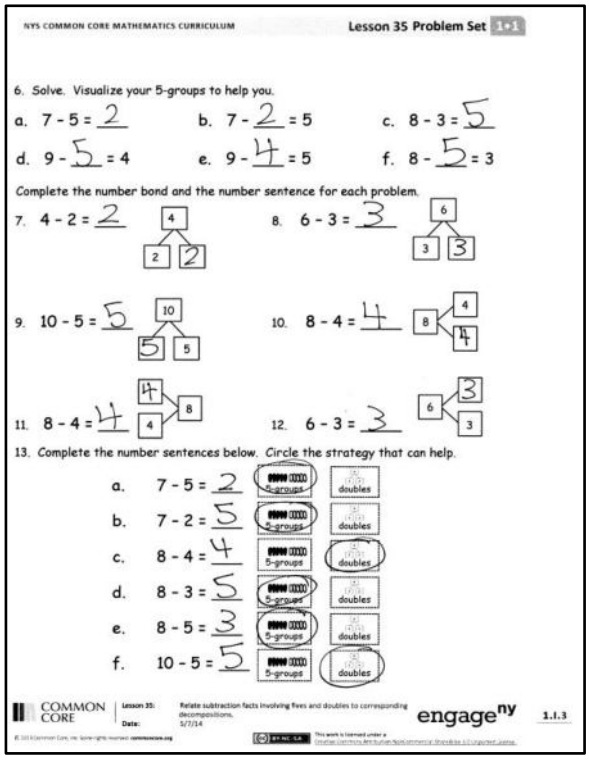
Name Maria Date

Solve the sets of number sentences. Look for "easy groups" to cross off.

1. 6 - 5 = 1, 6 - 1 = 5
2. 8 - 3 = 5, 8 - 5 = 3
3. 9 - 4 = 5, 9 - 5 = 4

Subtract. Make a math drawing, like the ones above, for each. Write a number bond.

4. 7 - 5 = 2, 7 - 2 = 5
5. 10 - 5 = 5


NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 35 Problem Set 1•1

6. Solve. Visualize your 5-groups to help you.
a. 7 - 5 = 2 b. 7 - 2 = 5 c. 8 - 3 = 5
d. 9 - 5 = 4 e. 9 - 4 = 5 f. 8 - 5 = 3

Complete the number bond and the number sentence for each problem.
7. 4 - 2 = 2 (4; 2, 2)
8. 6 - 3 = 3 (6; 3, 3)
9. 10 - 5 = 5 (10; 5, 5)
10. 8 - 4 = 4 (8; 4, 4)
11. 8 - 4 = 4 (8; 4, 4)
12. 6 - 3 = 3 (6; 3, 3)

13. Complete the number sentences below. Circle the strategy that can help.
a. 7 - 5 = 2 (5-groups, doubles)
b. 7 - 2 = 5 (5-groups, doubles)
c. 8 - 4 = 4 (5-groups, doubles)
d. 8 - 3 = 5 (5-groups, doubles)
e. 8 - 5 = 3 (5-groups, doubles)
f. 10 - 5 = 5 (5-groups, doubles)

Student Debrief (10 minutes)

Lesson Objective: Relate subtraction facts involving fives and doubles to corresponding decompositions.

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.

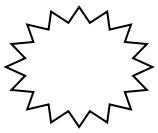
Any combination of the questions below may be used to lead the discussion.

- Look at Problems 6(a) through 6(f). Talk to your partner about what you visualized to help you solve these problems.
- How can your hands help you solve problems like these? (Fingers are like 5-groups.)
- How are your hands similar to the number bracelet? How are they different?
- Look at Problems 13(a) through 13(f). For which problems did you use 5-groups? For which problems did you use doubles? Could you use both of them on any of the problems?
- Look at how you solved the Application Problem. How can we use the Rekenrek to solve this same problem? How can we use 5-groups to solve this problem?

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.

A

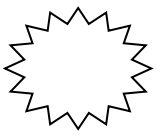
Number Correct: 

Name _____ Date _____

Write the missing number for each subtraction sentence. Pay attention to the = sign.

1.	2 – 2 = □		16.	0 = 10 – □	
2.	1 – 1 = □		17.	0 = 9 – □	
3.	1 – 0 = □		18.	0 = 8 – □	
4.	3 – 3 = □		19.	0 = 6 – □	
5.	3 – 2 = □		20.	1 = 6 – □	
6.	4 – 4 = □		21.	1 = 7 – □	
7.	4 – 3 = □		22.	1 = 10 – □	
8.	6 – 6 = □		23.	10 – □ = 1	
9.	7 – 7 = □		24.	□ – 9 = 1	
10.	8 – 8 = □		25.	7 – □ = 0	
11.	8 – 7 = □		26.	0 = 7 – □	
12.	9 – 9 = □		27.	0 = 9 – □	
13.	9 – 8 = □		28.	□ – 8 = 0	
14.	10 – 10 = □		29.	□ – 7 = 1	
15.	10 – 9 = □		30.	1 = □ – 5	

B

Number Correct: 

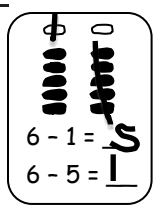
Name _____ Date _____

Write the missing number for each subtraction sentence. Pay attention to the = sign.

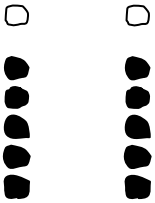
1.	3 – 3 = ☐		16.	0 = 6 – ☐	
2.	2 – 2 = ☐		17.	0 = 7 – ☐	
3.	1 – 1 = ☐		18.	0 = 8 – ☐	
4.	1 – 0 = ☐		19.	0 = 10 – ☐	
5.	2 – 1 = ☐		20.	1 = 10 – ☐	
6.	4 – 3 = ☐		21.	1 = 9 – ☐	
7.	5 – 4 = ☐		22.	1 = 7 – ☐	
8.	7 – 7 = ☐		23.	7 – ☐ = 1	
9.	8 – 8 = ☐		24.	☐ – 6 = 1	
10.	9 – 9 = ☐		25.	6 – ☐ = 0	
11.	10 – 10 = ☐		26.	0 = 6 – ☐	
12.	10 – 9 = ☐		27.	0 = 8 – ☐	
13.	8 – 7 = ☐		28.	☐ – 8 = 0	
14.	6 – 5 = ☐		29.	☐ – 6 = 1	
15.	6 – 6 = ☐		30.	1 = ☐ – 6	

Name _____ Date _____

Solve the sets of number sentences. Look for easy groups to cross off.



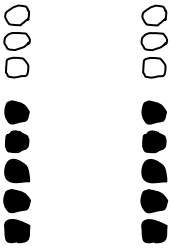
1.



6 – 5 = ____

6 – 1 = ____

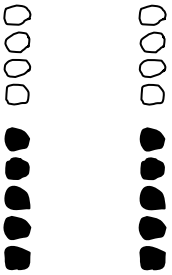
2.



8 – 3 = ____

8 – 5 = ____

3.

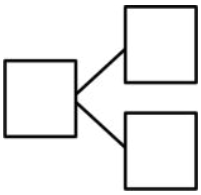


9 – 4 = ____

9 – 5 = ____

Subtract. Make a math drawing for each problem like the ones above. Write a number bond.

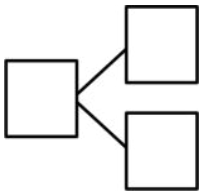
4.



7 – 5 = ____

7 – 2 = ____

5.



10 – 5 = ____

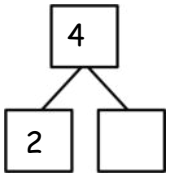
6. Solve. Visualize your 5-groups to help you.

a. 7 – 5 = ____ b. 7 – ____ = 5 c. 8 – 3 = ____

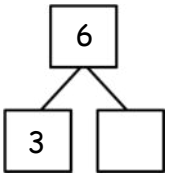
d. 9 – ____ = 4 e. 9 – ____ = 5 f. 8 – ____ = 3

Complete the number bond and number sentence for each problem.

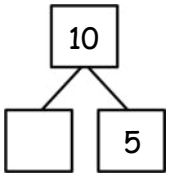
7. 4 – 2 = ____



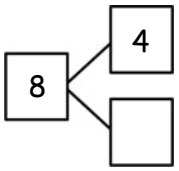
8. 6 – 3 = _____



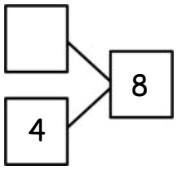
9. 10 – 5 = ____



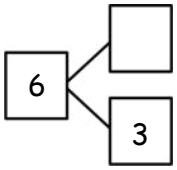
10. 8 – 4 = _____



11. 8 – 4 = ____



12. 6 – 3 = _____



13. Complete the number sentences below. Circle the strategy that can help.

a. 7 – 5 = ____ 5-groups doubles

b. 7 – 2 = ____ 5-groups doubles

c. 8 – 4 = ____ 5-groups doubles

d. 8 – 3 = ____ 5-groups doubles

e. 8 – 5 = ____ 5-groups doubles

f. 10 – 5 = ____ 5-groups doubles

Name _____ Date _____

Solve the number sentences. Make a number bond.
Draw a picture or write a statement about the strategy that helped you.

Doubles helped me solve!

6 – 3 = 3

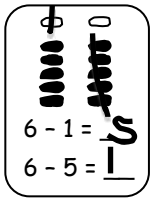
1. _____ – 5 = 5

2. 8 – _____ = 4

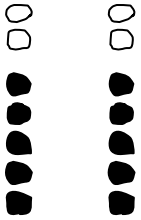
3. 9 – ___ = 4

Name _____ Date _____

Solve the sets of number sentences. Look for easy groups to cross off.



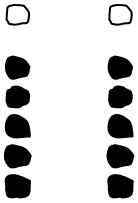
1.



7 – 5 = _____

7 – 2 = _____

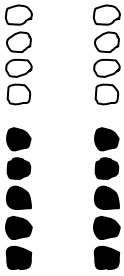
2.



6 – 5 = ____

6 – 1 = ____

3.

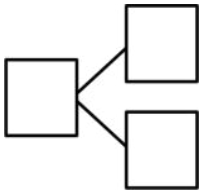


9 – ____ = 4

9 – ____ = 5

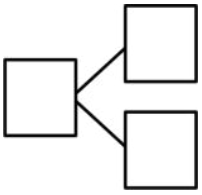
Subtract. Make a math drawing for each problem like the ones above. Write a number bond.

4.



10 – 5 = _____

5.



8 – 5 = _____

8 – ____ = 5

6. Solve. Visualize 5-groups to help you.

a. 9 – ____ = 4

b. ____ – 5 = 5

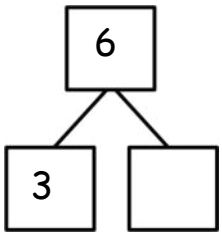
c. 8 – ____ = 5

d. ____ – 5 = 2

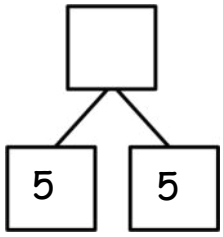
e. ____ – 5 = 3

f. ____ – 4 = 5

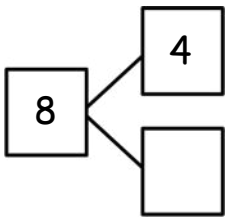
Complete the number sentence and number bond for each problem.

7. 

6 – 3 = ___

8. 

___ – 5 = 5

9. 

8 – ___ = 4

10. Match the number sentence to the strategy that helps you solve.

a. 7 – ___ = 2

b. 8 – ___ = 3

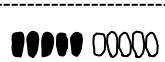
c. 10 – ___ = 5

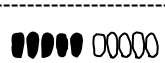
d. ___ – 3 = 3

e. 8 – ___ = 4

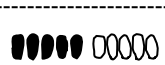
f. 9 – ___ = 5


doubles


5-groups


5-groups


doubles


5-groups


doubles