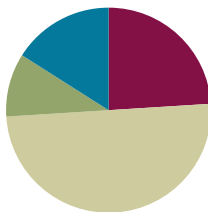


Lesson 36

Objective: Decompose the number 10 using 5-group drawings, and record each decomposition with a subtraction equation.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(25 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (12 minutes)

- Sprint: Core Fluency **K.OA.5** (9 minutes)
- Counting to 30 by Ones with the Rekenrek **K.CC.1** (3 minutes)

Sprint: Core Fluency (9 minutes)

Materials: (S) Core Fluency Sprint (2 copies of the Lesson 31 Sprints)

Note: This activity assesses students' progress toward mastery of the required fluency for kindergarten. Select the Sprint that is most appropriate for the class. In order to correct the work as a class, all students should take the same Sprint.

T: It's time for a Sprint! (Briefly recall previous Sprint preparation activities, and distribute Sprints facedown.) Take out your pencil and one crayon—any color. For this Sprint, you are going to subtract to find how many are left. (Demonstrate the first problem as needed.)

Continue to follow the Sprint procedure as outlined in Lesson 3. Have students work on the Sprint a second time. Continue to emphasize that the goal is simply to do better than the first time and celebrate improvement.

Counting to 30 by Ones with the Rekenrek (3 minutes)

Materials: (T) 100-bead Rekenrek

Note: Counting from 20 to 30 is easier than learning the linguistically challenging counting sequence of 11–20. Once students know the number word *twenty*, it becomes just a matter of extending a pattern.

Conduct as described in Lesson 32.

Application Problem (5 minutes)

Materials: (S) 10 linking cubes, personal white board

Martin had 10 building blocks. Pretend your linking cubes are his blocks. Count to make sure there are 10.

He shared 4 blocks with his sister. Move 4 blocks to show the ones he shared. How many blocks did he still have? Make a number bond about the story. Now, make a number sentence. Show your work to your partner. Did she do it the same way?

Put your blocks back together. Act out the story again, sharing a different number of blocks this time. How does your number sentence change?

Note: Concrete work with decomposition of 10 prepares students for today's lesson.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Scaffold the Application Problem for students working below grade level and students with disabilities by asking them to act out the problem and asking questions as they go. For example, if Martin had 10 blocks, ask, "How many blocks does Martin have?" If he shares 4 blocks with his sister (have one student give her partner 4 blocks), ask, "How many blocks does his sister have? How many does Martin have left?"

Concept Development (25 minutes)

Materials: (S) Subtraction equation (Lesson 33 Template), personal white board

T: Melanie had 10 peaches. Draw her peaches in the 5-group way on your personal white board. (Demonstrate drawing the 5-group way.) 4 of her peaches were not yet ripe. Circle and cross out the 4 unripe peaches. How many peaches were ready to eat?

S: 6. → She has 6 ripe peaches!

T: Let's make a number bond about this story. What is our whole? How many peaches does she have?

S: 10.

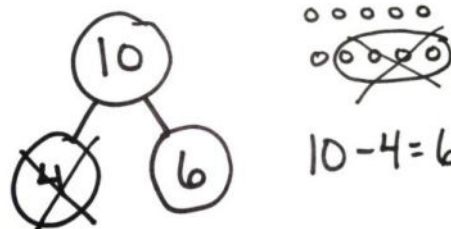
T: What would our parts be?

S: 4 and 6. → 4 are not ripe, and 6 are!

T: (Demonstrate making a number bond.) What if we wanted to make a subtraction sentence from this number bond?

S: We would start with the 10 peaches. → We would take away the 4 that aren't ripe. → There are 6 left!

T: Write the number sentence on your board, and read it with me: $10 - 4 = 6$.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

To support English language learners, teach the meaning of words they need to follow the lesson, such as *peach*, *ripe*, *car*, and *wheel*. Bring in examples of ripe fruit and fruit not yet ripe to help students get an orientation to the context of the problem. Allow English language learners to make up stories in their first language to show on their personal white boards.

MP.4

- T: Erase your board. Listen to this next story: Chris had 10 toy cars. Draw squares in the 5-group way to show all of his cars. (Allow time for students to draw, and then demonstrate the process to ensure accuracy.) 2 of the cars had no wheels. Circle and then cross off the cars with no wheels. (Demonstrate.) Who can help me make a number bond about this story?
- S: He had 10 cars, so the 10 would be the whole. → The parts would be 2 and 8 for the cars that didn't have wheels and the cars that did.
- T: Great! (Draw the number bond.) How will we make our number sentence? (Allow students to offer guidance in creating the subtraction equation.) Write the equation, and read with me.
- S: $10 - 2 = 8$.
- T: It's time for some partner work! With your partner, make up some *ten* stories of your own. Show your work on your board. When you have your number sentence, raise your hand so I can come add it to our collection! (Circulate to check for accuracy and understanding. Pairs of students can be encouraged to show their work on the board or on chart paper. While collecting the equations, write them on the board to be reviewed at the end of the lesson or during the Student Debrief. If desired, allow students to work on paper for this part of the lesson, and collect the lovely story problems for a class math book.)

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Student Debrief (8 minutes)

Lesson Objective: Decompose the number 10 using 5-group drawings, and record each decomposition with a subtraction equation.

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 the first problem. Tell your neighbor what each dot represents. (Look for the response that each dot represents one of the blueberries.)

NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 36 Problem Set K•4

Name Andy Date 3-25-13

Fill in the number bond and number sentence. Cross off the part that goes away.

Stan had 10 blueberries. He ate 5 berries. How many blueberries are left?

10
5 5

○○○○○
○○○○○

$10 - 5 = 5$

Tracy had 10 heart stickers. She lost 1 sticker. How many stickers are left?

10
1 9

○○○○○
○○○○○

$10 - 1 = 9$

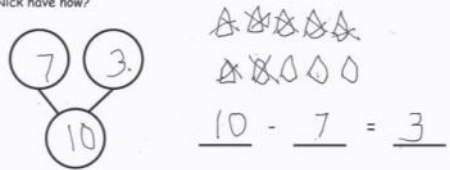
COMMON CORE Lesson 36: Decompose the number 10 using 5-group drawings. Record each decomposition with a subtraction equation. engage^{ny} 4.G.5

- How did you know which number belongs in the first blank in your number sentences?
- How did crossing out in your pictures help you make your number sentences?
- Do you always have to take time drawing a picture, or can we represent pictures with something easier and faster to draw? Did we do this in the Problem Set?
- How are the number sentences on the board alike? How are they different?

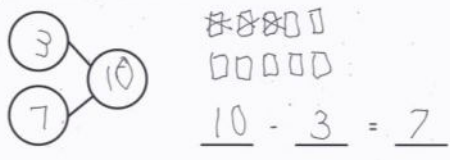
NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 36 Problem Set K•4

Make a 5-group drawing to show the story. Fill in the number bond and number sentence. Cross off the part that goes away.

Nick had 10 party hats. 7 hats were thrown away. How many hats does Nick have now?



Tatiana had 10 juice boxes. 3 juice boxes broke and spilled. How many juice boxes does she have left?



Subtract.

5 - 1 = 5 - 2 = 5 - 3 = 5 - 4 =

COMMON CORE Lesson 36: Decompose the number 10 using 5-group drawings. Record each decomposition with a subtraction equation. Date: 10/2/13 engage^{ny} 4.G.6

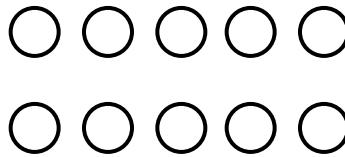
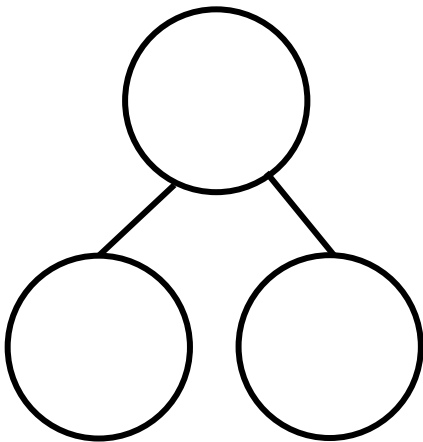
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Name _____

Date _____

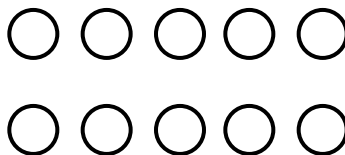
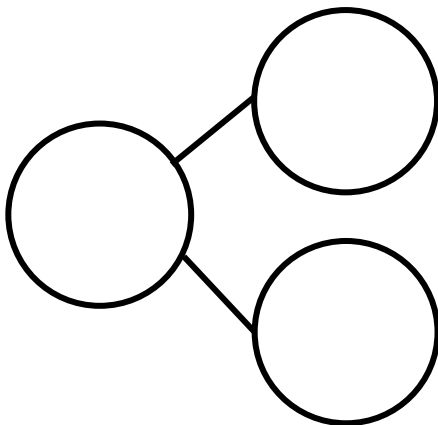
Fill in the number bond and number sentence. Cross off the part that goes away.

Stan had 10 blueberries. He ate 5 berries. How many blueberries are left?



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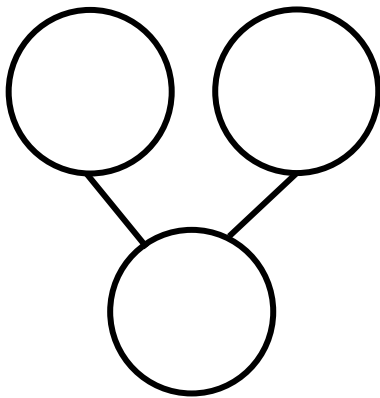
Tracy had 10 heart stickers. She lost 1 sticker. How many stickers are left?



$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

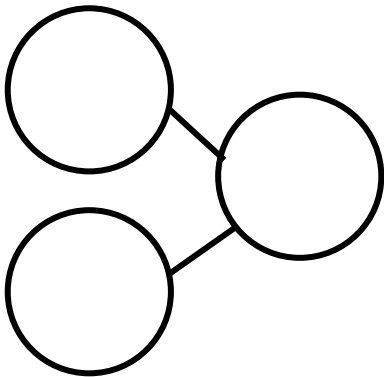
Make a 5-group drawing to show the story. Fill in the number bond and number sentence. Cross off the part that goes away.

Nick had 10 party hats. 7 hats were thrown away. How many hats does Nick have now?



$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

Tatiana had 10 juice boxes. 3 juice boxes broke and spilled. How many full juice boxes does she have left?



$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

Subtract.

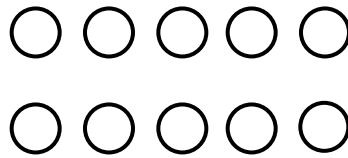
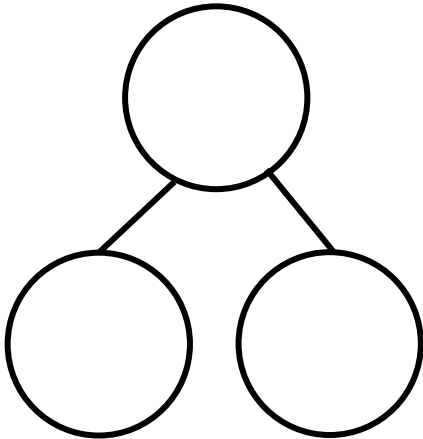
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Name _____

Date _____

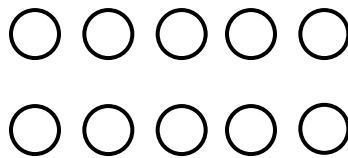
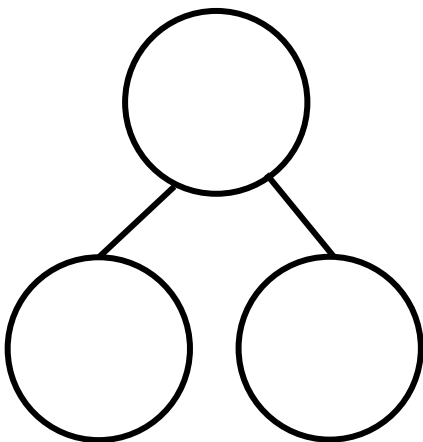
Fill in the number bond and number sentence. Cross off the part that goes away.

Mackenzie had 10 buttons on her jacket. 2 buttons broke off her jacket. How many buttons are left on her jacket?



$$\underline{\quad\quad} - \underline{\quad\quad} = \underline{\quad\quad}$$

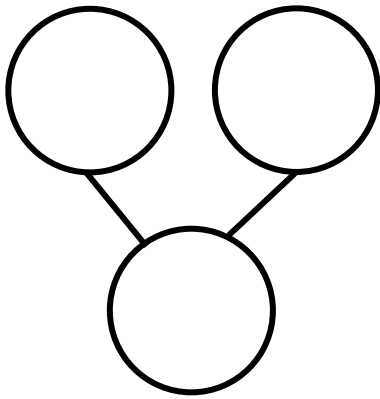
Donna had 10 cups. 6 cups fell and broke. How many unbroken cups are there now?



$$\underline{\quad\quad} - \underline{\quad\quad} = \underline{\quad\quad}$$

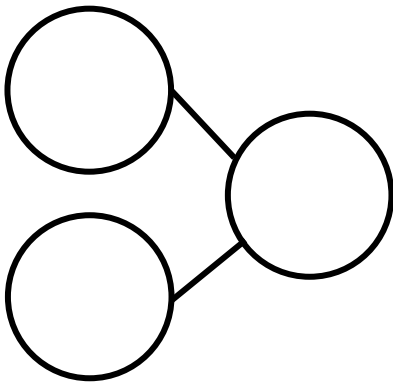
Make a 5-group drawing to show the story. Fill in the number bond and number sentence. Cross off the part that goes away.

There were 10 butterflies. 9 butterflies flew away. How many are left?



$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

Bob had 10 toy cars. 4 cars drove away. How many cars are left?



$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

Subtract.

$$5 - 3 = \boxed{\quad} \quad 5 - 2 = \boxed{\quad} \quad 5 - 4 = \boxed{\quad} \quad 5 - 1 = \boxed{\quad}$$