Support Coach

1 TARGET Foundational Mathematics

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Count and Write Two-Digit Numbers

READY!   ## Learn About Teen Numbers

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▶ READY

Learn About Teen Numbers
Student Edition pp. 2–3
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<td>• Count teen numbers as ones.
• Write teen numbers.</td>
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SET

Teen Numbers as Tens and Ones
</td>
<td>• Count teen numbers as ten ones and more ones.
• Compose and decompose teen numbers as ten ones and more ones.</td>
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GO

Count and Write Two-Digit Numbers
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<td>• Represent two-digit numbers using tens and ones.</td>
<td>Understand that two-digit numbers consist of tens and ones.</td>
<td>• tens-ones table</td>
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MATERIALS

- Math Tool: Counters, p. B2 (Student Edition, p. 205)

ENGLISH LANGUAGE LEARNERS

Some English Language Learners may stumble with teen numbers since these numbers are exceptions to the patterns in counting. Some may also struggle with *eleven* and *twelve* since they do not have *teen* in their names. Write each *teen* number on the board and as you write the number, say the word and have children repeat. Then draw a model for each depicting that all teen numbers have a group of ten and extra ones. Finally, say the word aloud again and then say the number of tens and ones for each teen number.

Build Background

- Talk to children about times they may have counted numbers greater than 10.
- **MP3** Lead the discussion toward what numbers children used when they had more than 10 objects to count; did they say eleven, or did they say 10 and 1, 10 and 2, and so on?
- Explain to children that they will learn about numbers between 11 and 19, which are the teen numbers, so that they can count when they have more than 10 items.

Introduce and Model

- **Introduce Concepts** Guide children through the information about teen numbers between 11 and 19. Discuss any similarities children may see in the examples of 11 through 14. Ask:

  What do you notice that is the same and what is different about each number of cubes? [Each number has a group of 10 blue cubes. Each number has a different number of red cubes.]

  💬 **Support Discussion** **MP3** Have children discuss why every teen number has a group of 10 blue cubes when they count.

  > **Prompt:** *Why do you think every teen number has a group of 10 blue cubes?*
  > **Sentence Starter:** *Every teen number has a group of 10 blue cubes because…*
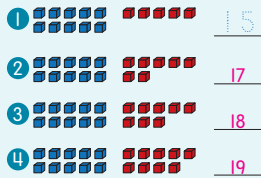
LESSON 1 — Count and Write Two-Digit Numbers

READY! Learn About Teen Numbers

Teen numbers are the numbers from 11 to 19.
You can use cubes to show a teen number.

11   13
12   14

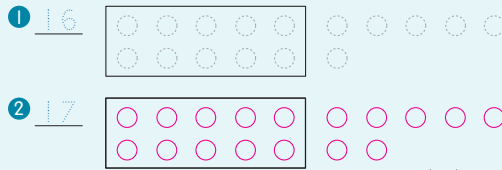**A** Count the cubes to find how many.

DO Write the teen number.
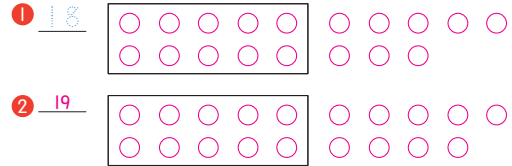
1. 15
2. 17
3. 18
4. 19

B Model 16 and 17.

DO Draw 10 ◯ in the box.
Draw more ◯ to show the number.

1. 16
2. 17

TRY IT!

Model 18 and 19. Write each number.
Then draw 10 ◯ in the box.
Draw more ◯ outside the box.

1. 18
2. 19

Model Application

DO **A** Guide children through counting the cubes in each group. Remind them to count the top blue cube row first, and then continue to the next blue cube row. Finally, have them count the red cubes starting with the top row.

✅ *How many blue cubes did each number have?* [Each number had 10 blue cubes.]

DO **B** Instruct children to first draw a top row of 5 circles, and then a bottom row of 5 circles. Finally, have them draw the ones.

✅ *How did putting the 10 circles in the box help you with drawing the teen number?* [Listen for children to discuss that they knew they had 10 in the box, and then they could just draw the remaining ones.]

Practice and Assess

● Have children discuss the relationship between a group of 10 ones (as named previously) to now referring to this group as a ten. Then relate this terminology to the first digit in a teen number.

Observation	Action
Child fails to draw 10 circles in the box to aid in counting.	Remind the child that each teen number has more than 10 ones. The box is a tool he or she can use to keep track of 10 of those ones.

● At the conclusion of this portion of the lesson, ask children:

🦴 *Why is it helpful to have a group of 10 ones together?* [Listen for children to discuss that keeping 10 together helps when counting because they can start counting at 10.]

COMMON ERRORS

Watch for children who do not keep 10 circles separate, or inaccurately count the remaining items. Have children touch each item as they count, so they can keep track of how many they have.

Teen Numbers as Tens and Ones

	OBJECTIVES	CONCEPTS AND SKILLS	VOCABULARY
▶ SET **Teen Numbers as Tens and Ones** Student Edition pp. 4–5	• Count teen numbers as ten ones and more ones. • Compose and decompose teen numbers as ten ones and more ones.	Compose and decompose teen numbers into tens and ones.	• ten frame

MATERIALS
• Math Tool: Place-Value Models: Ones, p. B3 (Student Edition, p. 207)
• Math Tool: Ten Frame p. B4 (Student Edition, p. 209)
• Counters *(suggested)*

ENGLISH LANGUAGE LEARNERS
Some English Language Learners may have trouble pronouncing or differentiating between *teen* and *ten*. Write each word on the board. Next, point to each word, say it aloud, and have children repeat. For *teen*, emphasize the long *e* sound and point to the two *e*'s in the word. Then point to *ten,* say the word aloud, and have children repeat. Finally, have children write each word and write an example of each word.

Build Background
● Ask children to think about the teen numbers they drew and counted in the Ready! section.

Do you remember something that was the same about all of the teen numbers? [Listen for children to identify that each teen number had a group of 10 cubes or circles.]

● **MP3** Direct the discussion toward making groups of ten. Ask children to think of a time when making groups of ten things made counting simpler.

● Explain to children that they will learn another name for the group of 10 ones they will create, and how it can help with counting teen numbers.

Introduce and Model
● **Introduce Concepts and Vocabulary** Introduce children to the ten frame and how it can be used to count teen numbers. Use the phrase "10 ones and more ones" to describe a teen number. For example, 13 would be 10 ones and 3 more ones. Then ask:

How can knowing that the ten frame is filled help you to count all of the cubes? [Listen for children to explain that they can start counting at 10, instead of having to start at 1 each time.]

💬 **Support Discussion MP2** Have children discuss how the 10 ones in the ten frame relates to the numeral 1 in the teen numbers.

> **Prompt:** *How does the 1 in teen numbers relate to the 10 ones that are in the ten frame?*
> **Sentence Starter:** *The 1 in the teen numbers relates to the 10 ones in the ten frame because…*

● **Model Application**

DO ▶ **A** Have children draw circles to model the number 15. Encourage them to complete the first ten frame by filling in the top row first with 5 ones, and then filling the bottom row with 5 ones to make a 10. Then they can complete the model with 5 more ones in the second ten frame.

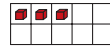● **MP4** Be certain that children complete their ten frame with 10 ones.

✅ *What would happen if you only put 9 circles in the ten frame?* [I would only be showing 14, since I could not start counting from 10.]

SET! Teen Numbers as Tens and Ones

You can model teen numbers with **ten frames**.
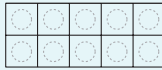
This is a ten.   These are ones.

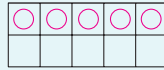Let's count starting at 10. Then count on. 10, 11, 12, 13.

A Draw ◯ for your model.

DO   Model 15.

❶ Draw ◯ to fill the first ten frame.

❷ Draw more ◯ in the second ten frame.

____1____ ten   ____5____ ones

❸ 15 is ____1____ ten ____5____ ones.

B **WORK TOGETHER!** Show a teen number two ways using ◯.

DO   Model 16.

Math Tool Pages 207, 209

❶ One partner shows 16 using ones.

❷ The other partner shows 16 using ten frames.

❸ Count both models. Are they both 16? (yes) no

❹ Is one way easier to count?

TRY IT!

Choose a teen number.
First draw ◯ to model the teen number.
Then draw ◯ to model using ten frames.

DO **B** **Work Together** Assign which child will first model with ones and which child will model with ten frames for each pair. Then have each child count out loud using his or her model. Remind the child who models with ten frames to start counting from 10.

Why is it easier to count on from a ten frame with 10 ones instead of counting each one separately? [It will take less time for me to count since I can start from 10, instead of counting from 1.]

Practice and Assess

• Ask children to complete the Try It! on page 5 in pairs. Monitor ongoing work. Ensure that children fill the ten frames when modeling the teen numbers. Use the chart below as needed to address any difficulties.

Observation	Action
Child does not fill the first ten frame with 10 ones.	Have the child count with fingers, starting at one. Once the child is up to 10 have him or her stop. Explain that this is like the ten frame, all ten fingers are up and counted, just like all ten spaces must be filled. The child can count, 10 (all fingers up) then all down, 11, 12, 13, and so on.

• At the conclusion of this portion of the lesson, ask children:

How do you think you could use ten frames to show a number like 20? [Listen for children to explain that 2 ten frames will be filled since 20 is made of 2 tens.]

Count and Write Two-Digit Numbers

OBJECTIVES	CONCEPTS AND SKILLS	VOCABULARY
• Represent two-digit numbers using tens and ones.	Understand that two-digit numbers consist of tens and ones.	• **tens-ones table**

MATERIALS

- Math Tool: Pennies, p. B5 (Student Edition, p. 211)
- Counters *(suggested)*

Build Background

- Talk to children about situations when they might count more than 20 of something. Ask:

  Did you do anything to help you count to 20? [Listen for children who made groups of either 5 or 10.]

- **MP3** Have children discuss various times they would count more than 20 of something in the classroom or school.

- Explain to children that they will be learning about two-digit numbers that are greater than 19.

Introduce and Model

- **Introduce Concepts and Vocabulary** Guide children through the two ways to show the numbers in the instruction (27 and 38). Have them look at the ten frames and discuss what they notice about the number of full ten frames and the numeral that starts the two-digit number.

- Guide the discussion toward the tens-ones table. Explain to children that a tens-ones table is a table used to show the number of tens and ones using numbers instead of counters or cubes. Have children discuss how the tens-ones table relates to ten frames.

- **MP3** Pose the situation of having a tens-ones table that has 17 in the ones column. Have children discuss why this could or could not be correct. If children struggle, remind them that when there are more than 9 ones, they need to make a ten.

💬 **Support Discussion** **MP2** Have children discuss the relationship between what they were calling a group of 10 ones to now just calling a ten, and how this relates to the first digit in a two-digit number.

> **Prompt:** *How does a group of 10 ones and the name "a ten" relate to each other? How does a ten relate to the first number in a two-digit number?*
> **Sentence Starter:** *I can call the 10 ones in the ten frame a ten, and the number of tens is equal to the first digit…*

Encourage children to give examples of two-digit numbers and explain how many full ten frames they would need in relation to the first digit.

ENGLISH LANGUAGE LEARNERS

Some children may have trouble with the different meanings of *table*. Write *table* on the board and say the word out loud. Show examples of different kinds of tables. Then draw a tens-ones table similar to the one in your book. Then say, *This is a tens-ones table.* Have children repeat and then draw their own example of a tens-ones table. Give children different numbers to write in their tens-ones table.

GO! Count and Write Two-Digit Numbers

Two-digit numbers are made of tens and ones.
Show two-digit numbers with ten frames.

27   38
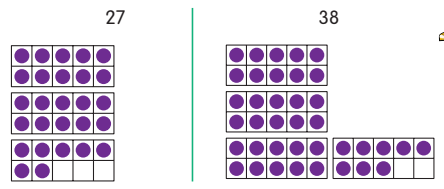
Show two-digit numbers with a **tens-ones table**.

tens	ones
2	7

2 tens 7 ones is 27.

tens	ones
3	8

3 tens 8 ones is 38.

A Write the number showing tens and ones.

DO Circle groups of 10.

① Count the groups of tens. __2__ tens
② Count the ones left over. __4__ ones
   __2__ tens __4__ ones is __24__.

6 Lesson I • Count and Write Two-Digit Numbers

B Jeremy circled groups of tens and left the ones.

DO Look how Jeremy circled groups of ten.

He made a table to show tens and ones.

tens	ones
3	12

Can Jeremy make another ten? (yes) no

C Show the number two ways.

DO Show 37 with ten frames.
Show 37 with a tens-ones table.

①

②
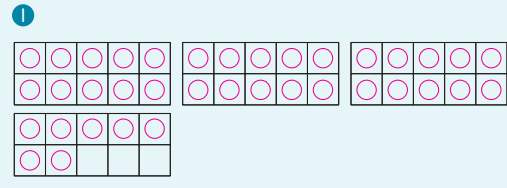
tens	ones
3	7

7

• Model Application

DO **A** Guide children through circling groups of ten starfish. Encourage them to discuss the relationship between the circled groups of tens and the remaining ones to a two-digit number made of tens and ones.

✐ *How can your groups of 10 starfish relate to filled ten frames?* [The ten starfish are a group of 10, which would fill a ten frame to show 10.]

✐ **Support Discussion** **MP3** Have children discuss briefly the reason there cannot be more than 9 ones leftover when using ten frames and tens-ones tables before starting **DO** **A**.

> *Prompt: What if you had more than 9 starfish left in your ones? What would happen?*
> *Sentence Starter: If I had more than 9 starfish left in my ones, I would…*

DO **B** Encourage children to use their ten frames and ones cubes to model how Jeremy circled the cubes. Discuss the issue of Jeremy having 12 ones left over, and what he must do to correct his tens-ones table.

DO **C** Encourage children to model the number using the given ten frames. First, ensure that children are filling each ten frame to accurately model the number. Then have children complete the tens-ones table.

• At the conclusion of this portion of the lesson, ask children:

🦴 *How do using ten frames and a tens-ones table help you know that two-digit numbers are made up of tens and ones?* [Listen for children to explain that the first digit represents the number of tens, and the second digit represents the remaining ones.]

CONNECT TO FOUNDATIONAL UNDERSTANDING

Modeling and writing teen numbers in the Ready section prepares children for counting and writing greater two-digit numbers beyond teen numbers. Within the Set section, children expand their knowledge of teen numbers. Here, they learn that teen numbers consist of tens and ones. Through the introduction and use of ten frames, children model teen numbers in a more sophisticated manner. They also learn how counting on from ten brings about efficiency in counting teen numbers after modeling. These skills and concepts are utilized within the Go section to help achieve fluency in counting and writing two-digit numbers greater than teen numbers.

TRY IT!

Support Independent Practice

1 Encourage children to count the group of ten and then count up to find the number.

Support Discussion MP2 MP3 After children write the number, ask them if they think the jellyfish could have been arranged in another way to make counting easier.

> **Prompt:** *Do you think the jellyfish could have been placed in a different way to making counting easier?*
> **Sentence Starter:** *The jellyfish could have been placed by…*

Listen for children to discuss arranging the jellyfish in a group of ten and ones, or resembling an arrangement similar to a ten frame.

2 Remind children to fill each ten frame with circles, and only one circle in each space. Discuss how they had associated the number of full ten frames to the first digit in a two-digit number and how the remaining ones were the second digit. Upon conclusion of the question, ask:

> *What if you needed to show 44? How many ten frames would be completely filled?* [4 ten frames]

> *Would you have the same number of ones or a different number of ones? How do you know?* [I would have the same number of ones. The full ten frames are related to the tens in the number. If the number is 44, then the ones are the same.]

3 Remind children how the tens-ones table relates to ten frames and ones. If children struggle to complete the tens-ones table, you can remind them to model the number using ten frames. However, you may want to encourage them to use their reasoning when completing the tens-ones table. Ask:

> *What does the tens box in the tens-ones table relate to in the number?* [It refers to the first number in the two-digit number.]

> *What does the ones box in the tens-ones table relate to in the number?* [It refers to the second number in the two-digit number.]

Supplying children with different ways to show a number will help later in the course if they should stumble with numbers.

4 Remind children that they learned different ways to show two-digit numbers:

- As a group of tens and ones in which they then circled groups of tens to find the two-digit number;

- As tens and ones, using full ten frames to show the number of groups of tens that is represented by the first digit in the number;

- Using a tens-ones table which shows the number of tens and ones in columns that represent how many tens and how many ones.
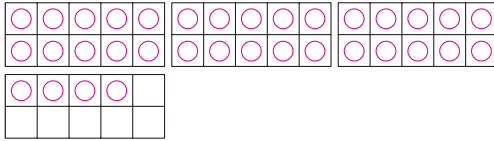
TRY IT!

1 Circle the group of ten.
Write the number.
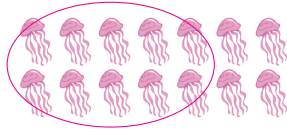
___14___

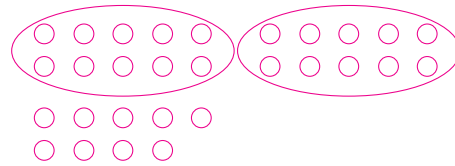**2** Draw ⬭ to show 34.

3 Show 48 in a tens-ones table.

tens	ones
4	8

4 Show 29 three ways.
Draw groups of tens and ones. Circle the groups of ten.

Use tens frames.
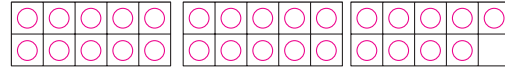
Use a tens-ones table.

tens	ones
2	9

Assess

- Use the table to observe whether children are accurately relating the digits in a two-digit number to tens and ones.
- When all children are ready, assign the Lesson 1 quiz.

1

Observation	Action
The child inaccurately completes each ten frame, at times with too many items and other times with too few. The child is not relating the first digit as being the number of tens and the second as being the number of ones.	Provide the child with 25 linking cubes. Have the child count and link together the first 10 cubes to make a tens tower. Then have the child continue counting through the teen numbers, while building the next ten tower, and count from 20 through 25, showing that the last 5 are not enough to make another ten.

2

Observation	Action
The child makes occasional errors of having too many or too few items in each ten frame, yet still understands the meaning of the digits.	Provide the child with tens and ones cards: one card with a 10, one with a 20, one with a 30, and a set of cards 1 – 9 to represent ones. Give the child a two-digit number and have the child show it using the cards. Then have the child explain what each digit represents.

3

Observation	Action
The child accurately fills the ten frames and has no more than 9 ones left over, along with understanding the value of each digit in a two-digit number.	Assign the Lesson 1 Quiz.

PROBLEM SOLVING Act It Out with Models

- **Model the Problem-Solving Strategy** `MP4` `MP5` Guide children through the problem-solving strategy, Act It Out with Models, demonstrating situations using common manipulatives.

    Children have been acting out problems throughout the lesson as they used ones cubes, counters, and ten frames. They were acting out making groups of tens and remaining ones.

    Show how acting out the problem with models can help children visually see what is occurring in the problem, and give them a tactile experience to help enhance their learning experience.

    Read Aloud Read aloud to the children, or have the children read through the problem together out loud: *Jermaine wants to trade some pennies for dimes. He knows 10 pennies equal 1 dime. He has 17 pennies.* Elicit a discussion how children may use Act It Out with Models to determine how many dimes Jermaine can get from 17 pennies.

    > *Prompt: Would using your own pennies help you understand how many dimes you can get with 17 pennies?*
    > *Prompt: How would you use your pennies to help find the number of pennies that can be traded for a dime?*

- **Explore Children's Thinking** Have children use the problem-solving strategy of Act It Out with Models, and ask them to describe each step they followed to solve the problem.

    > *Prompt: How did you arrange your pennies to find enough for 10 to be traded for a dime?*
    > *Prompt: How will you group the remaining pennies to see if you have enough for another dime?*
    > *Prompt: How many dimes can Jermaine trade for if he has 17 pennies?*

- **Mathematical Practices** `MP1` `MP3` `MP4` Children can use Act It Out with Models to solve many different situations. Using models should help them better visualize what is occurring, and more easily "see" what they need to do. Some questions you can ask to promote Mathematical Practice thinking could be:

    > *Prompt: Does the model you are using make sense to you for what you are trying to do?*
    > *Prompt: How did you arrange your pennies? Can you explain to someone why you did it that way?*
    > *Prompt: How did using pennies make it easier to trade for dimes?*

PROBLEM SOLVING Act It Out with Models

Jermaine wants to trade some pennies for dimes.
He knows 10 pennies equal 1 dime.

He has 17 pennies.
You count out 17 pennies.

He arranges his pennies like he is using a ten frame.

Arrange your pennies like a ten and more ones.

Jermaine takes the ten pennies, and trades them for a dime.

Trade your ten pennies for a dime.

Now Jermaine still has the same amount of money,
but now he has 1 ten and 7 ones.

1 ten   7 ones

10   Lesson 1 • Count and Write Two-Digit Numbers

TRY IT!

Use your pennies to trade for dimes.

Math Tool
Page 211

1 Hannah has 26 pennies.
She wants to trade her pennies for dimes.
How many pennies and dimes will she have?

__2__ dimes   __6__ pennies

2 Zac has 33 pennies.
He wants to trade his pennies for dimes.
How many pennies and dimes will he have?

__3__ dimes   __3__ pennies

11

Assess

- Use the table to observe whether children can accurately act out a problem using models.

- If children do show the ability to act out problems using models, ensure that children can use this strategy to help solve problems throughout the remainder of the book.

	Observation	Action
1	The child is not making the connection between the models and the situation in the problem.	Provide the child with more real-world type items and a simpler problem to solve. For example, provide the child with small erasers, and say for every 5 erasers, the child can trade in for a larger one. Have the child make groups of 5 to trade in for larger erasers.
2	The child can use models to represent the problem, but is still having difficulty with always knowing how to connect the model to the situation.	Again, provide real-world type items and give a situation where the child needs to use the items to solve the problem. For example, a child is given a certain number of star stickers during the month for completing homework. The child can trade every 10 in for a prize. Have the child group the stickers into groups of 10, and then trade them in for a prize.
3	The child accurately uses models to act out the problems, and understands how to relate the physical to the abstract situation.	The child is proficient in acting out problems with models, and has made the connection between the abstract and real items.