

Reveal

MATH[®]

Reveal the Full Potential
in Every Student

Place Value

Focus Question

How can I use place value to represent and compare numbers?

Hi, I'm Jin.

I want to be a paleontologist. I collect dinosaur teeth. I have 2 boxes. Each box has 10 teeth. I have 3 extra teeth. That is 2 tens and 3 more. I have 23 dinosaur teeth! Grouping tens and ones helps me count.



Name

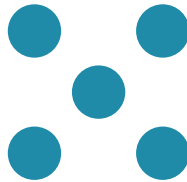
Seeing Dots

Listen to your teacher. Describe what you see.

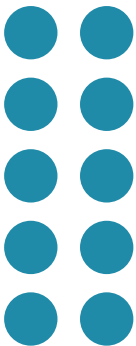
A.



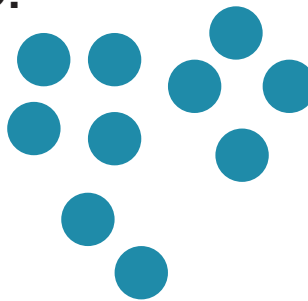
B.



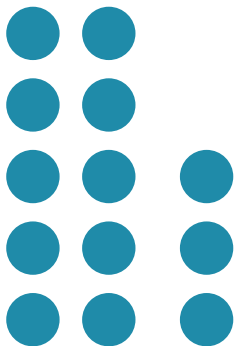
C.



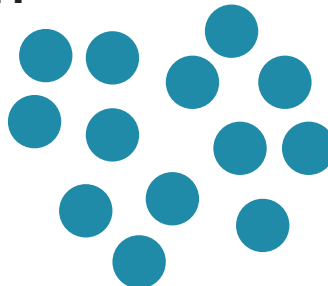
D.



E.



F.



Numbers 11 to 19



Be Curious

**What do you notice?
What do you wonder?**



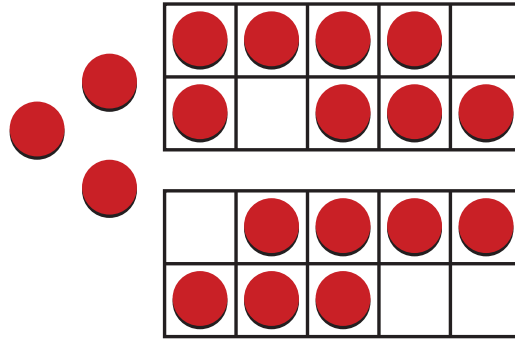
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Math is... Mindset

What do you like about math?

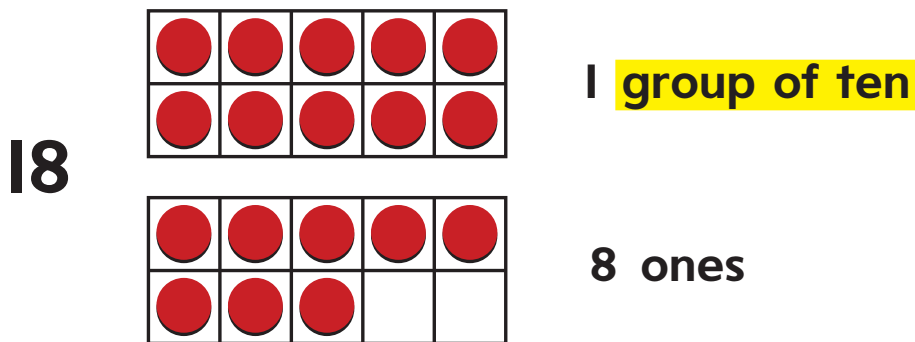
Learn

How can you determine the number of counters?



You can fill **ten-frames**.

The top ten-frame shows 1 group of ten.
The bottom ten-frame shows 8 ones.



Math is... Patterns

What patterns do you notice in teen numbers?

Numbers 11, 12, 13, 14, 15, 16, 17, 18, and 19 are **teen numbers**.

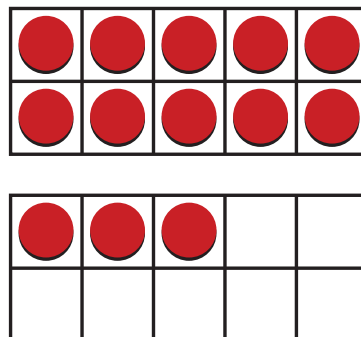
They have 1 group of ten and some ones.

Work Together

How many counters?

_____ group of ten and

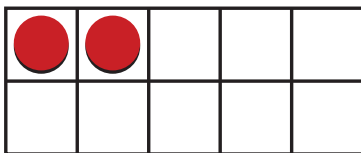
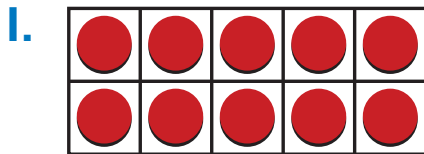
_____ ones is _____.



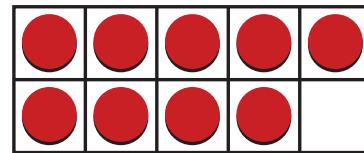
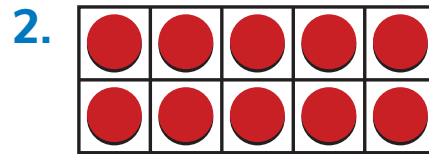
On My Own

Name _____

How many counters? Write the numbers.



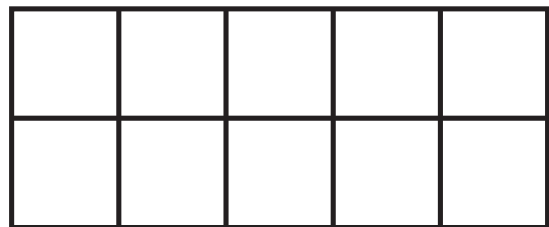
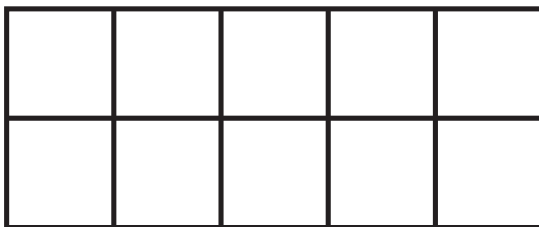
_____ group of ten and
_____ ones is _____.



_____ group of ten and
_____ ones is _____.

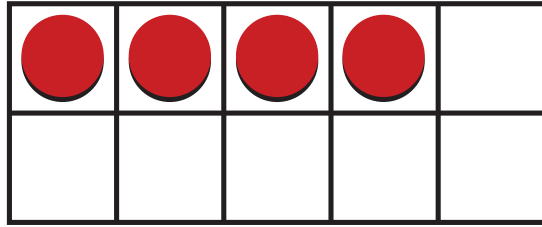
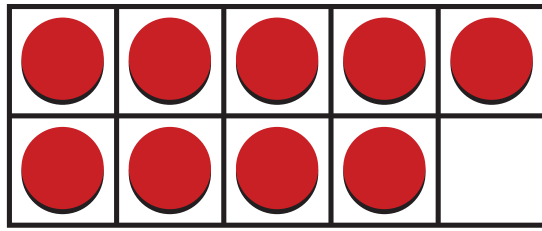
How can you show the number? Draw counters on the ten-frames. Write the numbers.

3. 17



_____ group of ten and _____ ones is _____.

4. Error Analysis Ella draws counters on ten-frames to show 14. Draw or cross out counters to help Ella fix her mistake.



5. Extend Your Thinking Circle all the teen numbers. Explain your thinking.

5 10 13 19

Reflect

How can you make teen numbers?

Math is... Mindset

What did you like about math today?

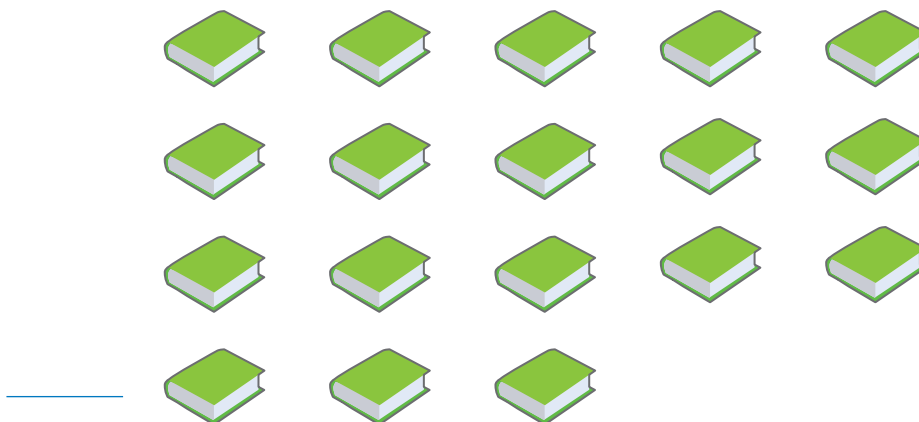
Show the Value of the Digit: Student Interview

Name _____

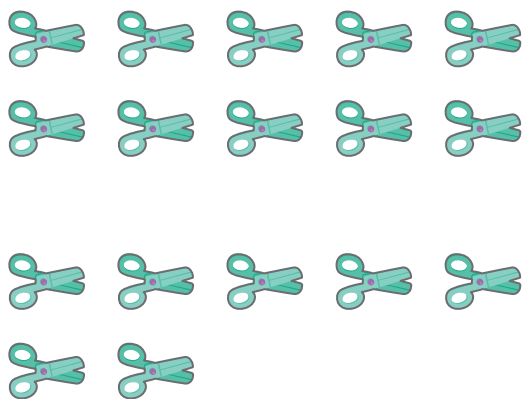
Card 1 Twelve Shoes



Card 2 Eighteen Books



Card 3 Seventeen Scissors



Reflect On Your Learning



Understand Tens



Be Curious

**What do you notice?
What do you wonder?**



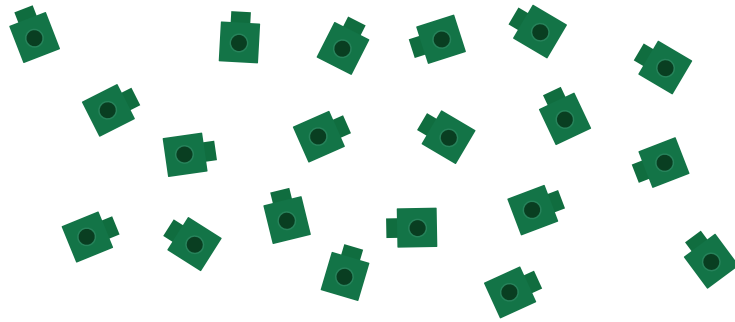
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Math is... Mindset

How can you use what you already know?

Learn

How can you count the connecting cubes?



You can make groups of 10 cubes.

The diagram illustrates the concept of tens and ones using green connecting cubes. On the left, a vertical column of 10 cubes is shown. An arrow points to a single vertical column of 10 cubes, representing one ten. On the right, two vertical columns of 10 cubes each are shown, representing two tens.

Math is... Modeling
How can connecting the cubes help you count?

10 ones is the same as 1 ten.

2 tens and 0 ones is 20.

You can put together 10 ones to make 1 ten.

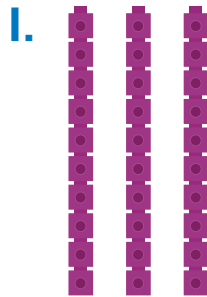
Work Together

What number has 8 tens and 0 ones?
Use connecting cubes to show the number.
8 tens and 0 ones is _____.

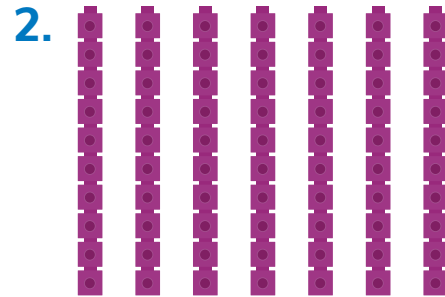
On My Own

Name _____

How many groups of 10? Write the numbers.

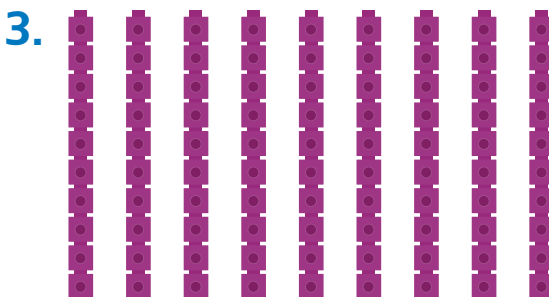


_____ tens and
_____ ones is _____.

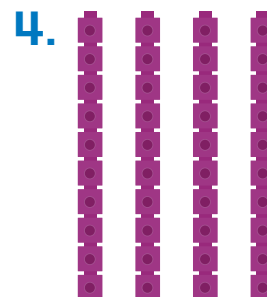


_____ tens and
_____ ones is _____.

How many groups of ten? Use cubes to show the tens. Then write the number of tens and ones.



_____ tens and
_____ ones



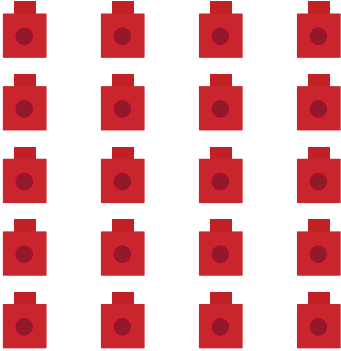
_____ tens and
_____ ones

5. **STEM Connection** Jin sorts his dinosaur toys into groups of 10. He has 5 groups. How many dinosaur toys does Jin have?

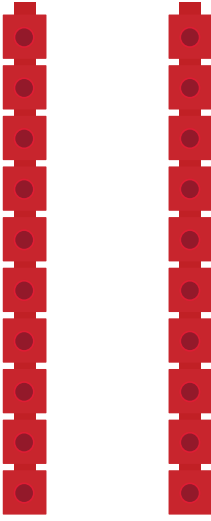
_____ dinosaur toys



6. **Extend Your Thinking** Do these show the same number? Explain your thinking.



0 tens and 20 ones



2 tens and 0 ones

Reflect

How can you show and group tens?

Math is... Mindset

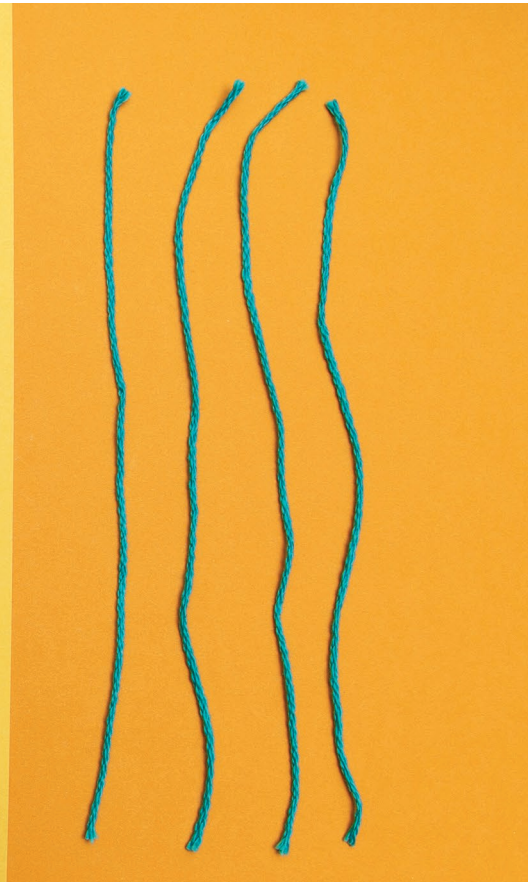
How can you use what you already know to help you learn more?

Represent Tens and Ones



Be Curious

**What do you notice?
What do you wonder?**



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Math is... Mindset

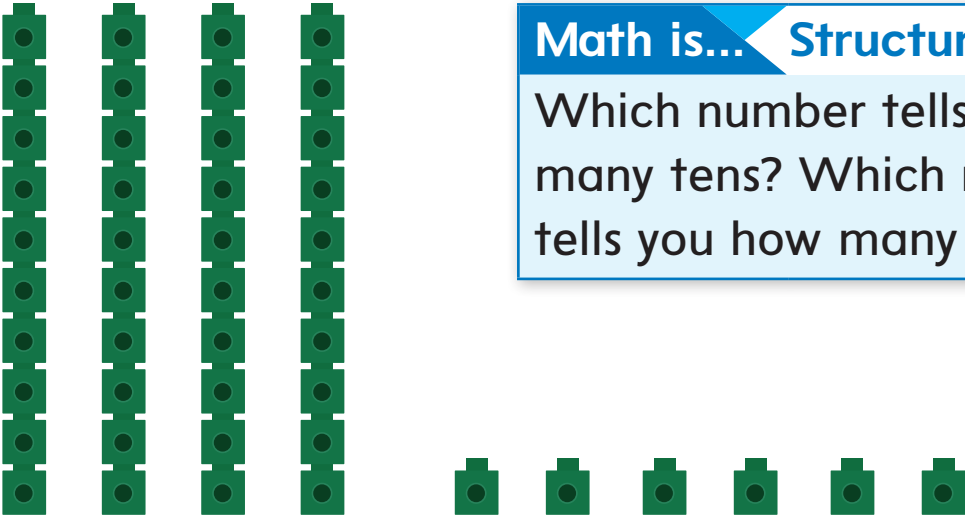
What is your goal for today?

Learn

How can you show how many tens and ones?

46

You can use cubes to show the tens and ones.



Math is... Structure

Which number tells you how many tens? Which number tells you how many ones?

4 tens and 6 ones is 46.

You can show a 2-digit number as tens and ones.

Work Together

How can you show 73? Draw or use cubes.
Then write the numbers.

_____ tens and _____ ones is _____.

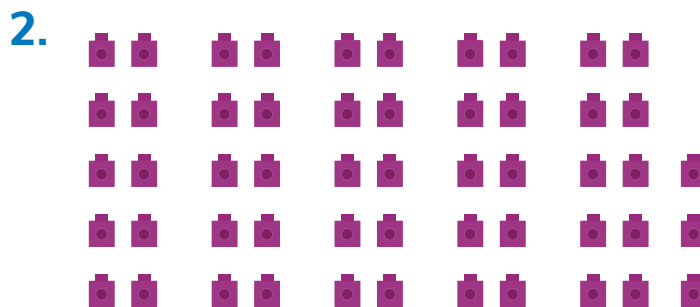
On My Own

Name _____

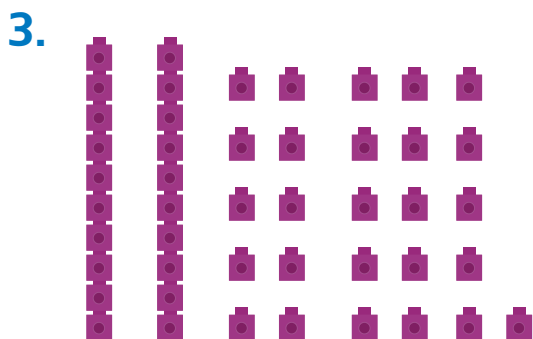
How many? Circle the tens. Then write numbers to show how many.



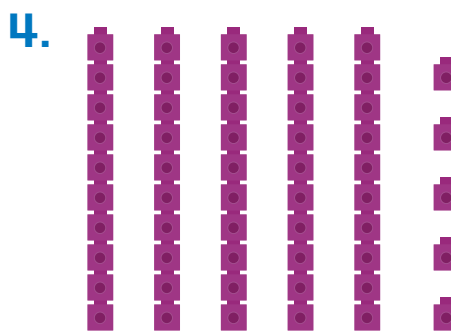
_____ tens and
_____ ones is _____.



_____ tens and
_____ ones is _____.



_____ tens and
_____ ones is _____.

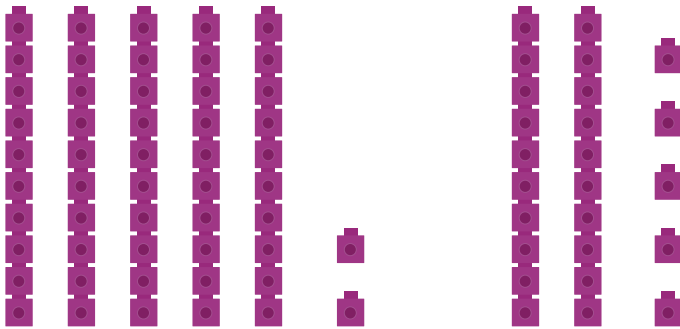


_____ tens and
_____ ones is _____.

5. Ida has 75 books. She puts 10 books on each shelf and has some left over. Write the tens and ones.

75 is _____ tens and _____ ones.

6. **Extend Your Thinking** Which cubes show 25?
Circle the cubes. Write how many tens and ones.



25 is _____ tens and _____ ones.

Reflect

How can you show tens and ones?

Math is... Mindset

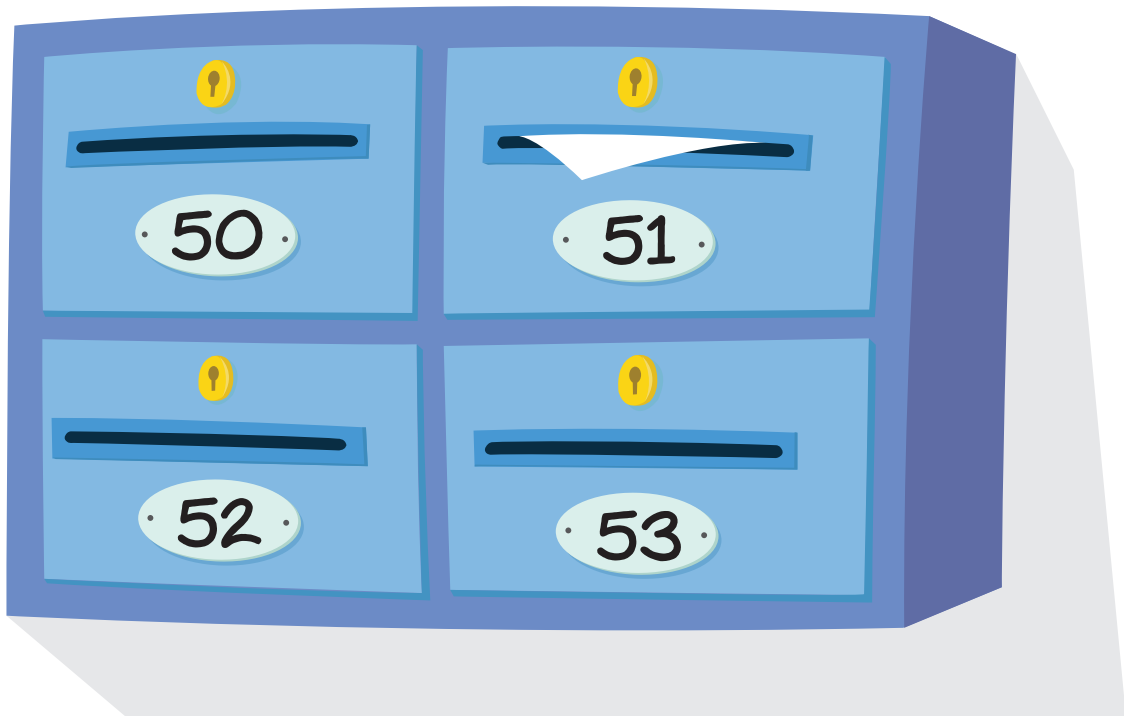
How have you worked to reach your goal today?

Represent 2-Digit Numbers



Be Curious

**What do you notice?
What do you wonder?**

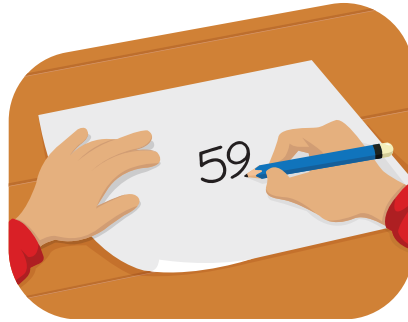


Math is... Mindset

How can you show/explain
your thinking?

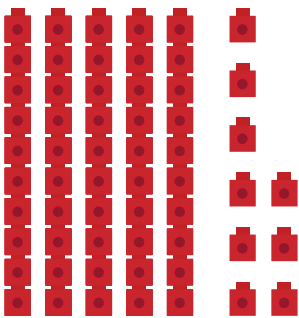
Learn

How can you show a number with 5 tens and 9 ones?



You can show **place value** different ways.

You can use connecting cubes.

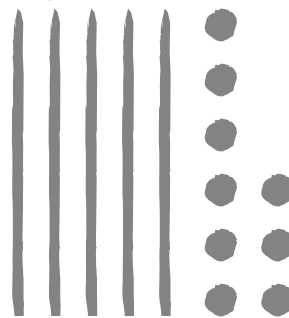


5 tens and 9 ones is 59.

You can use a **place-value chart**.

tens	ones
5	9

You can draw.

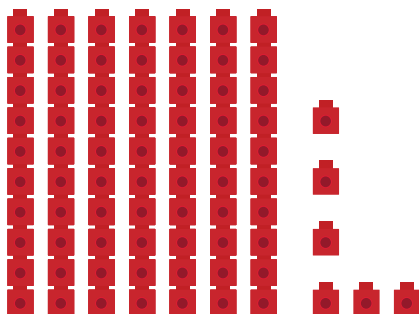


Math is... Modeling

How do the connecting cubes show the tens and ones?

Work Together

How can you use a place-value chart to show how many?

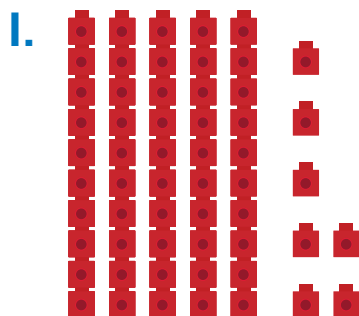


tens	ones

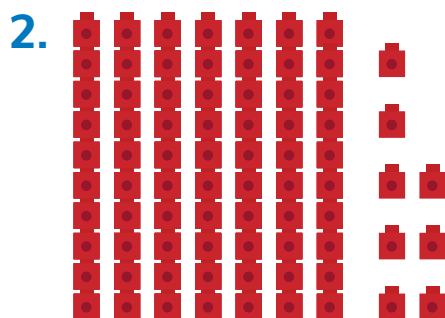
On My Own

Name _____

Write the number in the place-value chart.

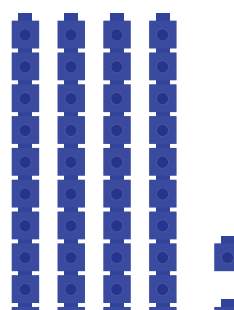
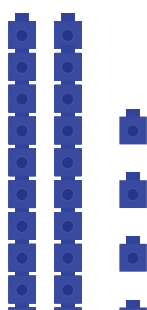


tens	ones



tens	ones

3. Which cubes show 42? Circle the cubes.
Write to show the tens and ones.



42 is _____ tens and _____ ones.

4. How can you show 4 tens and 0 ones? Draw to show. Write the number in the place-value chart.

tens	ones

Extend Your Thinking Use the number 68 to answer the questions.

5. What is the value of the 6?

_____ tens or _____

6. What is the value of the 8?

_____ ones or _____

Reflect

How can you show numbers with tens and ones?

Math is... Mindset

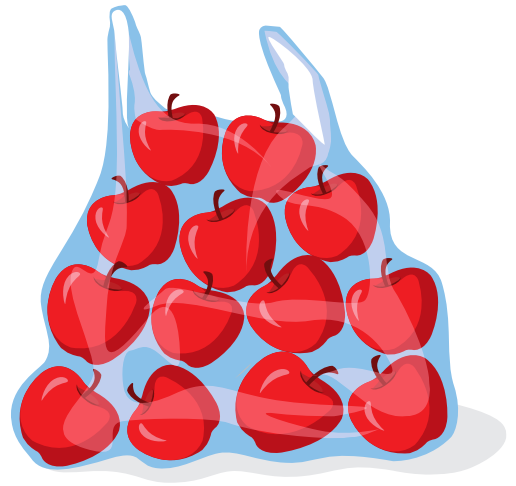
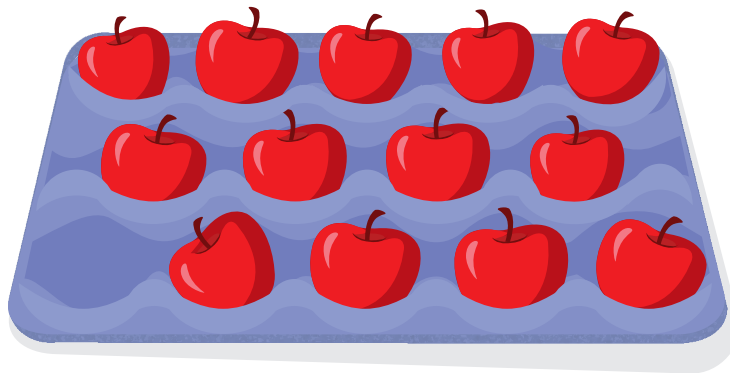
How has showing/explaining your thinking been helpful?

Represent 2-Digit Numbers in Different Ways



Be Curious

**How are they the same?
How are they different?**



Math is... Mindset

How can you show
that you understand
your partner's ideas?

Learn

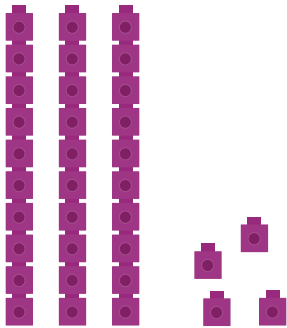
Grant shows a number with 1 ten and 24 ones.
Laila shows a number with 3 tens and 4 ones.

Do they both show the same number?

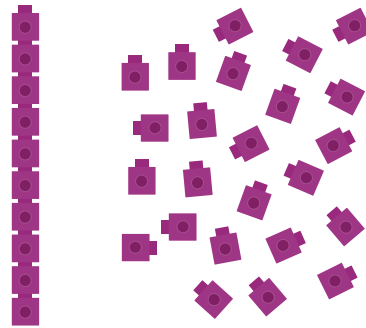
Math is... Explaining

How can you show the number?

You can show the tens and ones.



34 is 3 tens and 4 ones.

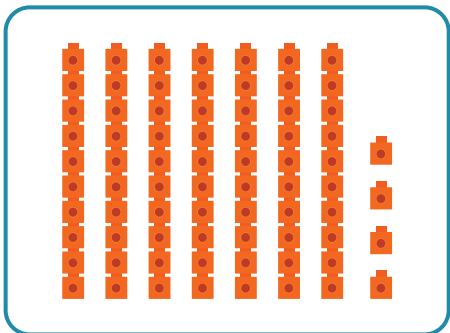


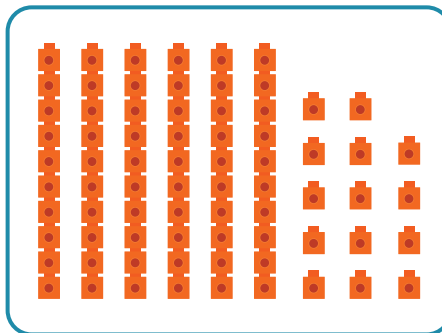
34 is also 1 ten and 24 ones.

You can show a number in different ways.

Work Together

Does each group show the same number?
How do you know? Write each number.



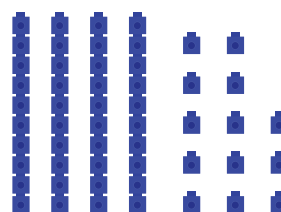
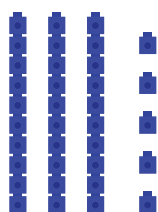
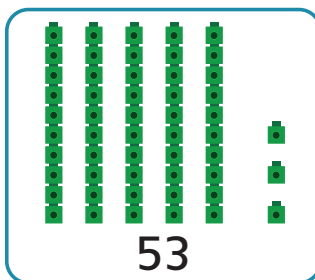


On My Own

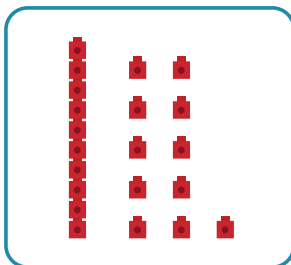
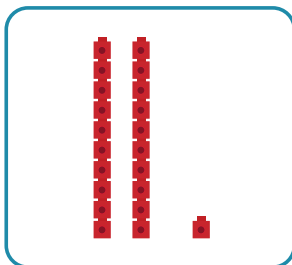
Name _____

Circle the answer to each problem.

1. Which shows a different way to make the number shown?



2. Do these show the same number? Yes No



Write the numbers.

3. **STEM Connection** Jin has 76 fossils. What are two ways he can show the number?

_____ tens and _____ ones is _____.

_____ tens and _____ ones is _____.



Draw to show your thinking.

4. How can you draw to show the number 29?



5. How can you draw to show 29 a different way?



6. **Extend Your Thinking** How can you show 49 in different ways? Use connecting cubes to help. Write the numbers.

0 tens and _____ ones

1 ten and _____ ones

_____ tens and 29 ones

3 tens and _____ ones

_____ tens and 9 ones

Reflect

How can you show a number in different ways?

Math is... Mindset

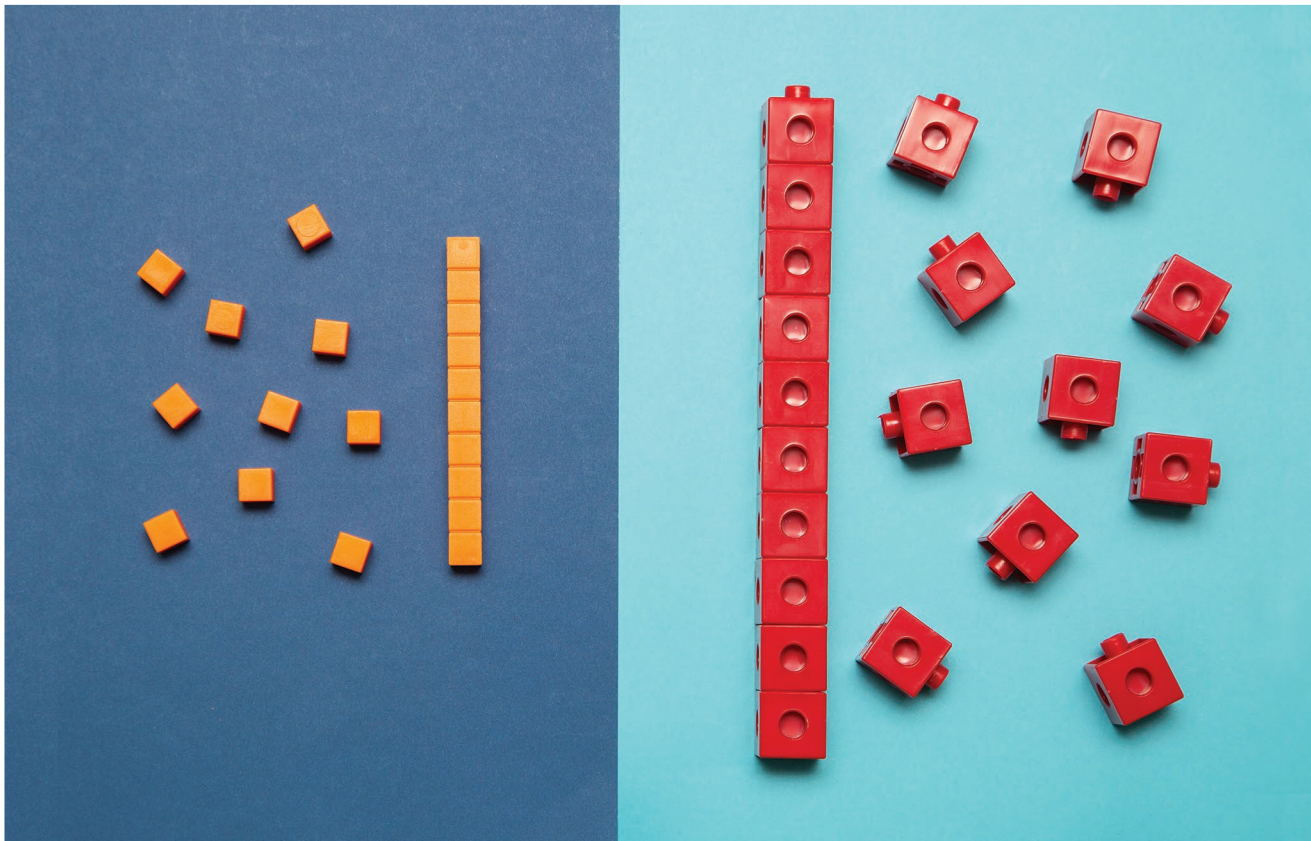
How have you shown that you understand your partner's ideas?

Compare Numbers



Be Curious

**What do you notice?
What do you wonder?**



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Math is... Mindset

What can you do to work with others to finish a task?

Learn

Marcy has 39 erasers.
Frank has 82 erasers.

Who has more erasers?

Marcy's Erasers



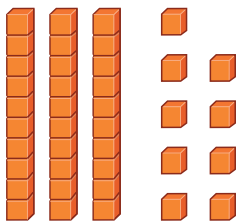
Frank's Erasers



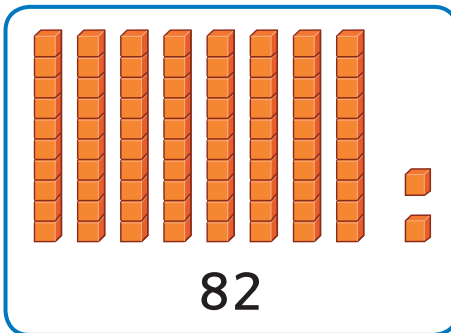
You can **compare** the numbers to show who has more.

Compare the tens. 8 tens is more than 3 tens.

82 is **greater than** 39.



39



82

Math is... Precision

How do you know when you need to compare the ones?

If the tens are the same, you compare the ones next.

A number can be greater than, **less than**, or **equal to** another number.

Work Together

Which number is greater? Circle the answer.

Explain your thinking.

74

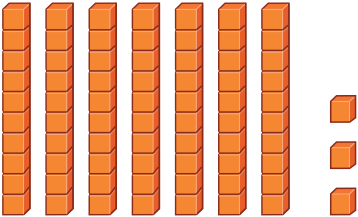
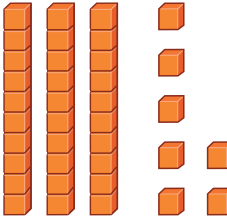
70

On My Own

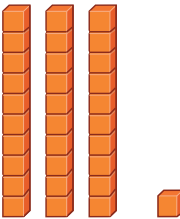
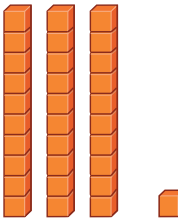
Name _____

How can you compare the numbers?

Circle *is greater than*, *is less than*, or *is equal to*.


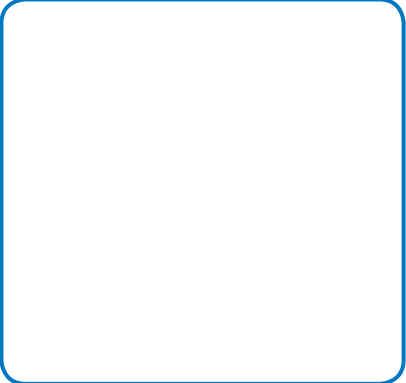
1.  is greater than 
 is less than
 is equal to

73 37

2.  is greater than 
 is less than
 is equal to

31 31

How can you compare the numbers? Draw to show the tens and ones. Circle *is greater than*, *is less than*, or *is equal to*.

3.  is greater than 
 is less than
 is equal to

52 53

How can you compare the numbers? Write *is greater than*, *is less than*, or *is equal to*.

4. 25 _____ 41 5. 68 _____ 66

6. **Error Analysis** Harper reads 38 pages. Eli reads 48 pages. Harper says she read more pages. How can you help Harper compare the numbers?

7. **Extend Your Thinking** What numbers can make the sentence true?

_____ is less than _____.

Reflect

How can you compare numbers to show which is greater?

Math is... Mindset

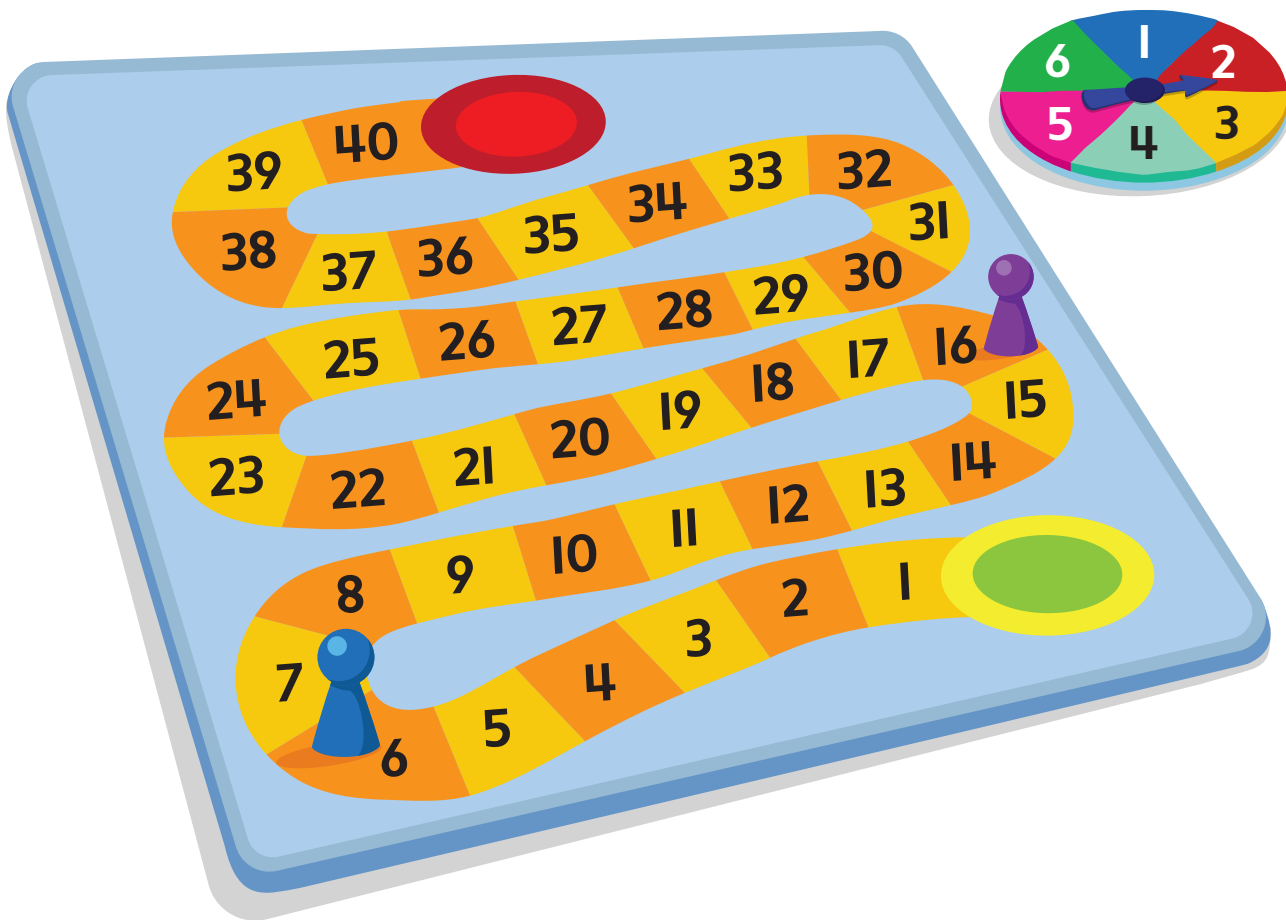
What did you do to work with others to complete a task?

Compare Numbers on a Number Line



Be Curious

What do you notice?
What do you wonder?



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Math is... Mindset

How can you picture a problem in your mind to help you find the answer?

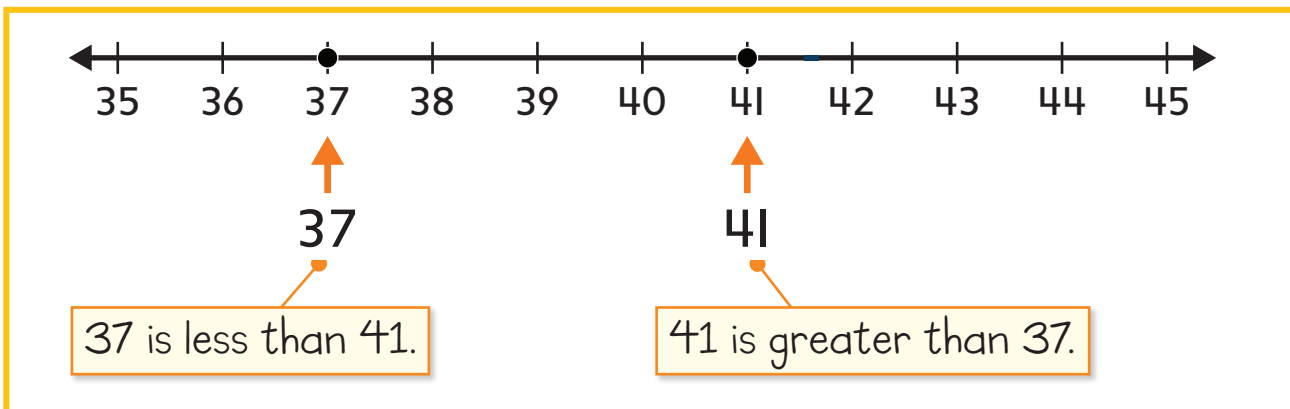
Learn

Quinn reads for 41 minutes on Monday. She reads for 37 minutes on Tuesday.

On which day does Quinn read for more minutes?

Reading Log	
Day	Time (Minutes)
Monday	41
Tuesday	37

You can compare the numbers on a number line.



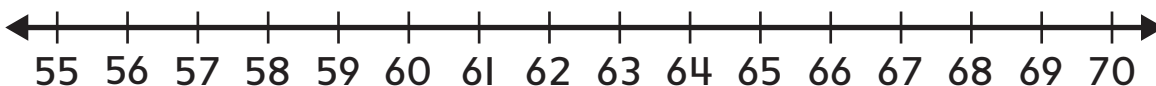
On a number line, the number to the right is greater. The number to the left is less.

Math is... Structure

If you know 41 is greater than 37, what else do you know?

Work Together

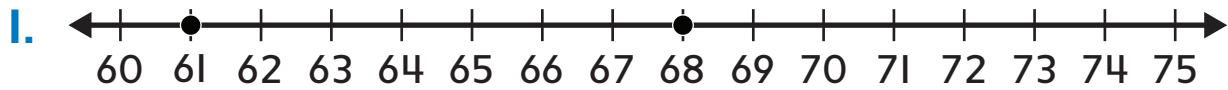
Which number is greater, 59 or 66? Show your thinking on the number line.



On My Own

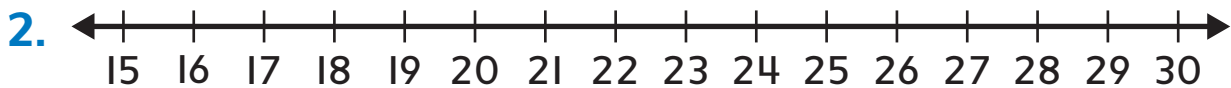
Name _____

Write *is greater than*, *is less than*, or *is equal to*.

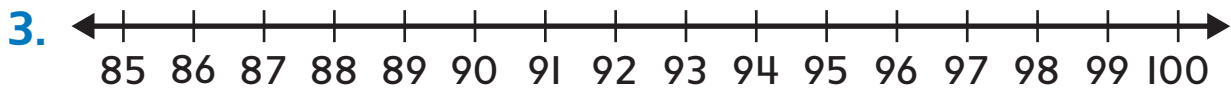


61 _____ 68

Draw dots to show the numbers on the number line.
Write *is greater than*, *is less than*, or *is equal to*.

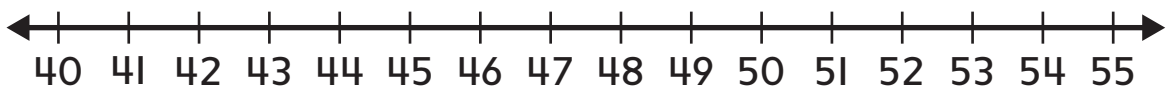


27 _____ 17



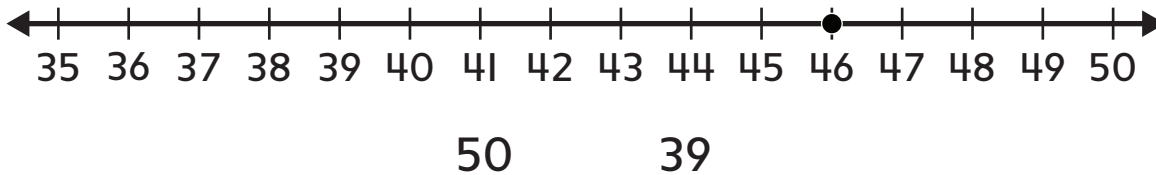
89 _____ 97

4. **STEM Connection** Jin digs for fossils. He digs 49 holes in his yard. He digs 51 holes at the park. Use the number line to compare the numbers.

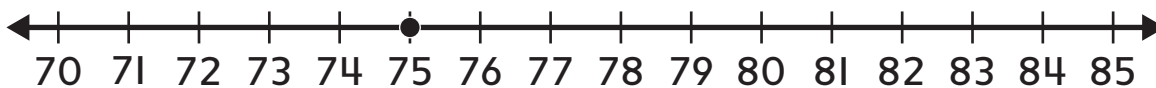


49 _____ 51

5. Which number makes the sentence true? Circle the number. 46 is greater than _____.



6. **Extend Your Thinking** What number is less than 75? Draw a dot on number line to show your answer. Explain your thinking.



Reflect

How can a number line help you compare numbers?

Math is... Mindset

How did you picture a problem in your mind to help you find the answer?

Use Symbols to Compare Numbers



Be Curious

**What do you notice?
What do you wonder?**



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Math is... Mindset

What has been hard for you? What have you enjoyed?

Learn

The pet store has 56 clownfish and 43 goldfish.

Which kind of fish does the pet store have more of?

Fish and More! Pet Store



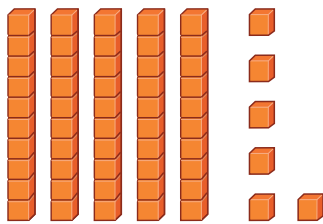
Name
Clownfish

Fish and More! Pet Store

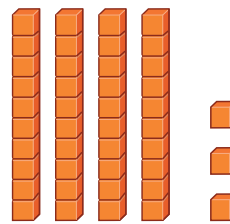


Name
Goldfish

You can compare the numbers.



56



43

56 is greater than 43

$$56 > 43$$

You can use $>$ (greater than), $<$ (less than), and $=$ (equal to) to compare numbers.

Math is... Thinking

Why might you want to compare two numbers?

Work Together

How can you compare the numbers? Use $>$, $<$, or $=$. Explain your thinking.

$$31 \bigcirc 13$$

On My Own

Name _____

Which sign matches the meaning? Circle $>$, $<$, or $=$.

1. less than

$>$ $<$ $=$

2. equal to

$>$ $<$ $=$

3. greater than

$>$ $<$ $=$

How can you compare the numbers? Draw the tens and ones. Write $>$, $<$, or $=$.

4.

63

61



5. **Error Analysis** Benny has 72 trading cards. Jordyn has 76 trading cards. Benny says $72 = 76$. How can you show Benny how to compare the numbers?

How can you compare the numbers?

Write $>$, $<$, or $=$.

6. $39 \bigcirc 27$

7. $88 \bigcirc 88$

8. $48 \bigcirc 49$

9. $57 \bigcirc 75$

10. **Extend Your Thinking** The pet store sells 47 kinds of cat food. It sells 65 kinds of dog food. How can you compare the numbers using $>$, $<$, or $=$? Explain your thinking.

Reflect

How did you work like a mathematician to compare numbers?

Math is... **Mindset**

What have you done well today?

Unit Review

Name _____

Vocabulary Review

Use the vocabulary to complete each sentence.

compare

equal to

greater than

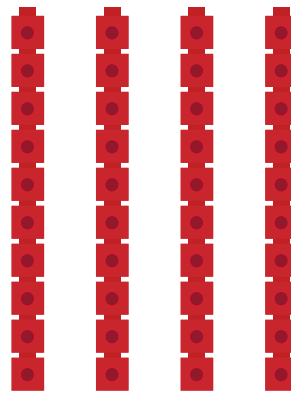
group of ten

less than

1. The = sign means _____.
2. The < sign means _____.
3. A group of 10 ones is 1 _____.
4. To look at numbers and see which is greater is to _____.
5. The > sign means _____.

Review

6. Look at the cubes.
Complete the sentence.



_____ tens and 0 ones is _____.

7. What is another way to show the number 18?
- A. 1 ten and 1 one
 - B. 1 ten and 8 ones
 - C. 8 tens and 1 one

8. Look at the number.

75

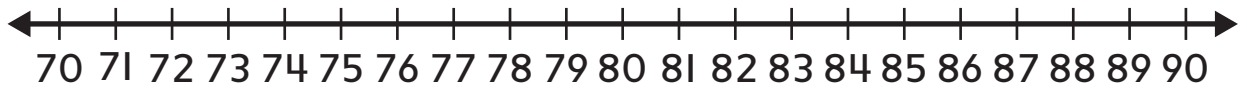
Complete the sentence.

_____ tens and _____ ones is _____.

9. Is the comparison is true or false? Mark the correct answer.

	True	False
$17 = 17$		
$39 < 93$		
$53 > 81$		

10. Use the number line.



Is the comparison true or false?

Mark the correct answer.

	True	False
80 is less than 77.		
78 is greater than 72.		
83 is greater than 86.		

11. How can you compare the numbers?

Write $>$, $<$, or $=$.

26 ○ 29

12. How can you compare the numbers?

Write $>$, $<$, or $=$.

51 ○ 51

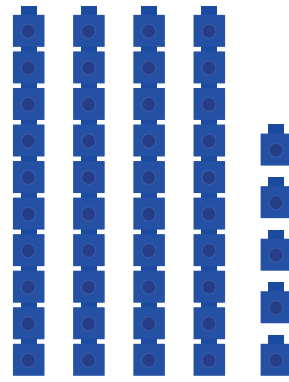
13. How can you compare the numbers?

Write $>$, $<$, or $=$.

63 ○ 48

Performance Task

- I. Sasha, Lee, and Jordan visit the history museum. They all see the same number of fossils. Each friend shows the number of fossils with connecting cubes.



- A. These are Sasha's cubes. How many groups of ten and how many ones? Write the numbers.

_____ tens and _____ ones is _____.

- B. Lee makes fewer groups of ten than Sasha. Write the number of Lee's cubes.

_____ tens and _____ ones

- C. Jordan makes different groups of tens than Sasha and Lee. Write the number of Jordan's cubes.

_____ tens and _____ ones

Reflect

What are different ways you can use place value to show and compare numbers?

Unit 3

Fluency Practice

Name _____

Fluency Strategy

You can count on to help you add.

$$4 + 2 = ?$$





So, $4 + 2 = 6$.

1. How can you draw to show how to add $7 + 1$?
Write the number.



$$7 + 1 = \underline{\quad}$$

Fluency Flash

How can you count on to add? Write the number.

2.  + 
 3 _____ _____

$$3 + 2 = \underline{\quad}$$

3.  + 
 5 _____

$$5 + 1 = \underline{\quad}$$

Fluency Check

What number shows a way to put together or break apart? Write the number.

4. $4 + \underline{\quad} = 5$

6. $7 + \underline{\quad} = 10$

5. $10 = 3 + \underline{\quad}$

7. $5 = 5 + \underline{\quad}$

What is the sum? Count on to add.

8. $6 + 1 = \underline{\quad}$

11. $3 + 2 = \underline{\quad}$

9. $8 + 2 = \underline{\quad}$

12. $2 + 1 = \underline{\quad}$

10. $5 + 2 = \underline{\quad}$

13. $1 + 2 = \underline{\quad}$

Fluency Talk

What are some tools you could use to help you count on to add? Explain.

What are some tools you could use to help you break apart 10?