NUMBER WORLDS™

Accelerate Math Success

Lesson 1
Find the Math

Many video games keep score in points. Often players have to score a certain number of points in one level of the game to move on to the next level. If you were going to create a video game, would it have different levels? How would players score points?

1. Suppose you score 3 points in one level of a game and 30 points in another. How are those two numbers the same? How are they different?

_____

_____

2. Would you rather score 41 points or 14 points? Why?

_____

_____

Lesson 1

Key Idea

■ = 1

To find the value of a group of unit blocks, count by ones.

▭▭▭▭▭▭▭▭ = 10
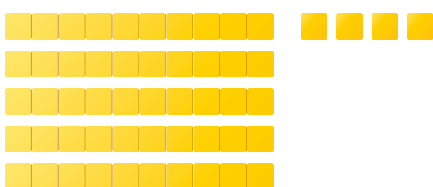
To find the value of a group of rods, skip count by 10.

Try This

Name each value shown by the group of blocks.

1. ■■■■■■■ ____

2. ____

3. ____

4. ____

Practice

Write how many tens and ones are in each number.

5. 43 = ___ tens and ___ ones

6. 71 = ___ tens and ___ ones

7. 28 = ___ tens and ___ ones

8. 55 = ___ tens and ___ ones

9. 70 = ___ tens and ___ ones

10. 6 = ___ tens and ___ ones

Draw a model of each number using unit blocks and rods.

11. 60

12. 33

Reflect

Explain how you would find the value of all the rods and all the unit blocks. Name the value.

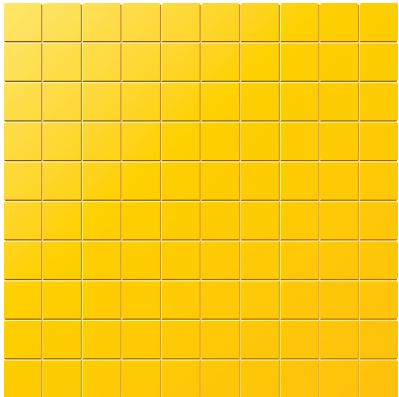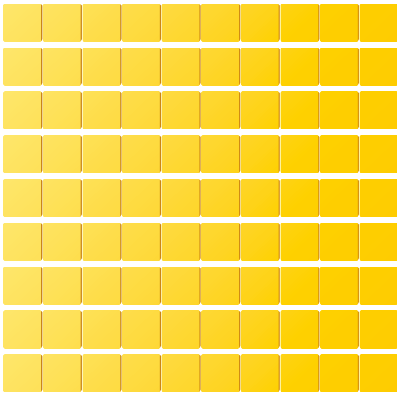# Lesson 2

Key Idea

$100 + 70 + 9$

1 hundred $+$ 7 tens $+$ 9 ones

Hundreds	Tens	Ones
1	7	9

This number in standard form is 179.

Try This

Fill in the blanks to show the value of each **digit**.

1.

Hundreds	Tens	Ones

____ hundreds = _____

____ tens = ____

____ ones = ____

Practice

Combine the numbers to form a single quantity.

2. $400 + 10 + 9$ _____   **3.** $70 + 5$ _____

4. $900 + 30$ _____   **5.** $200 + 1$ _____

6. $300 + 4$ _____   **7.** $500 + 50 + 5$ _____

Write how many hundreds, tens, and ones are in each number.

8. 248

____ hundreds ____ tens ____ ones

9. 325

____ hundreds ____ tens ____ ones

10. 304

____ hundreds ____ tens ____ ones

11. 560

____ hundreds ____ tens ____ ones

12. 56

____ hundreds ____ tens ____ ones

13. 792

____ hundreds ____ tens ____ ones

14. 227

____ hundreds ____ tens ____ ones

15. 385

____ hundreds ____ tens ____ ones

Reflect

Explain how the number 502 differs from the number 532.
Use place-value concepts to explain the difference.
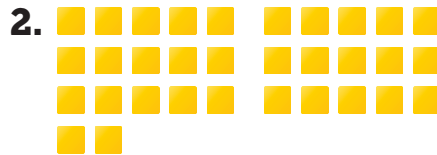
Lesson 3

Key Idea

10 **ones** = 1 **tens**

 =

Try This

Circle groups of 10 unit blocks. Write how many tens and how many ones there are for each model.

1.

_____ tens _____ ones

2.

_____ tens _____ ones

3. **Draw** 3 rods and 25 unit blocks in the number construction mat below. Then regroup to use the fewest base-ten blocks possible. What number is modeled? _____
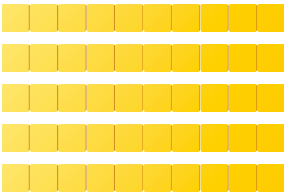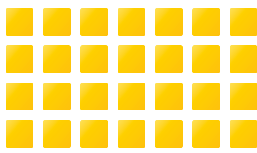
Hundreds	Tens	Ones

Practice

Make trades. Write each number in standard form.

4. _____

Hundreds	Tens	Ones

5. ____

Hundreds	Tens	Ones

Make trades. Write each number in standard form. Use base-ten blocks if needed.

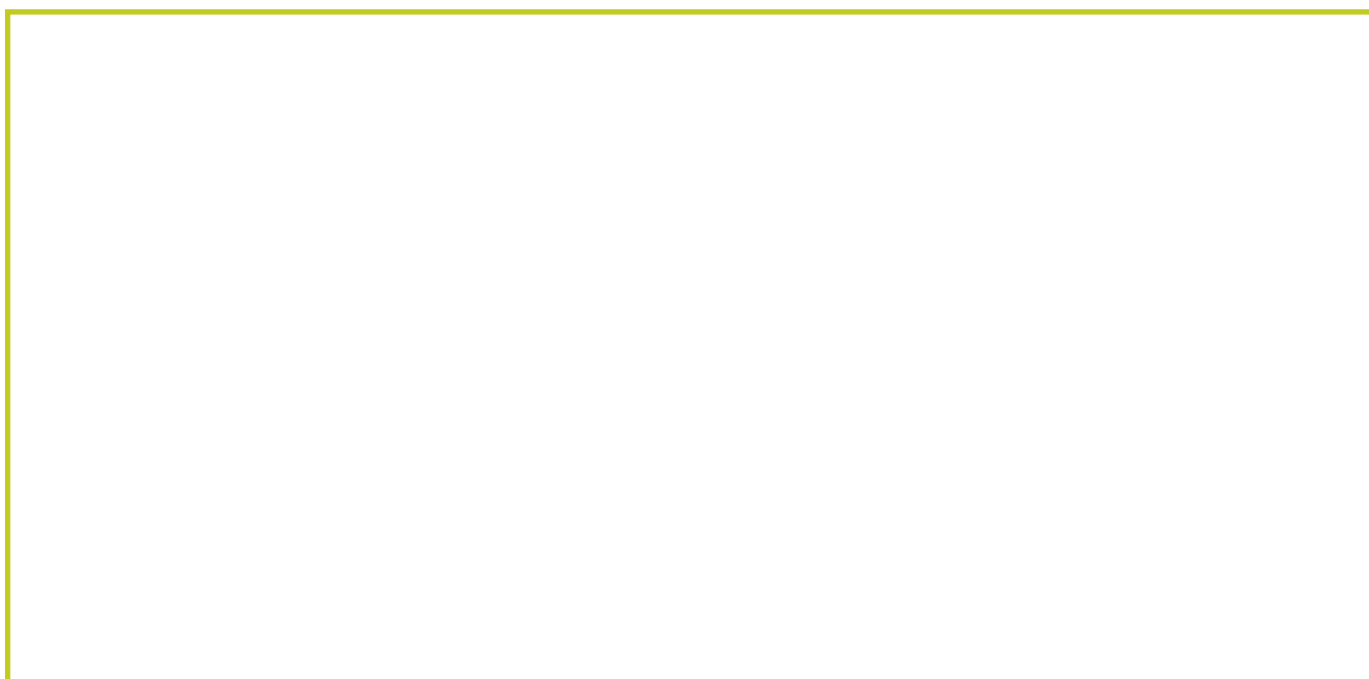**6.** 4 rods and 19 unit blocks = ____   **7.** 1 tens and 26 ones = ____

8. 3 tens and 20 ones = ____   **9.** 7 tens and 11 ones = ____
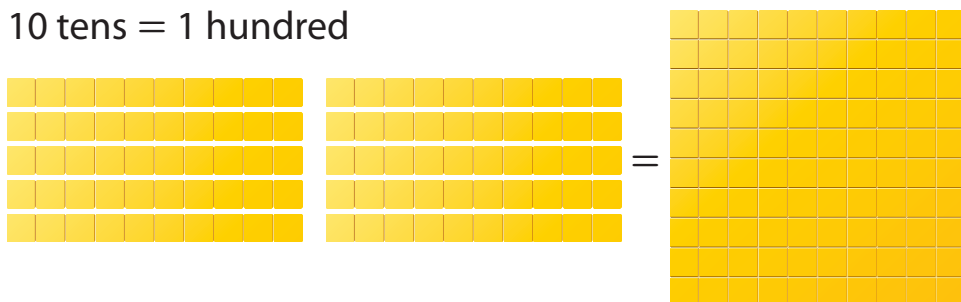
10. 4 tens and 35 ones = ____

Reflect

Draw base-ten blocks to make 25 in different ways. Draw 25 using only unit blocks. Draw 25 using rods and unit blocks. Finally, draw 25 using the fewest blocks possible.
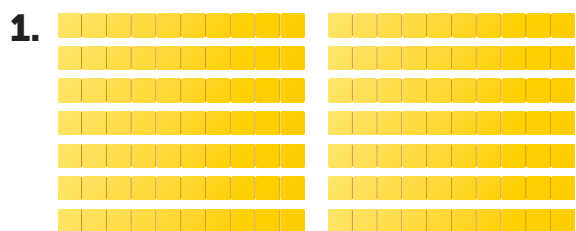
Lesson 4

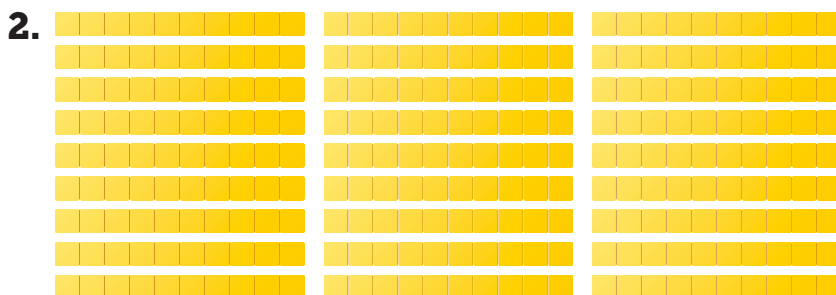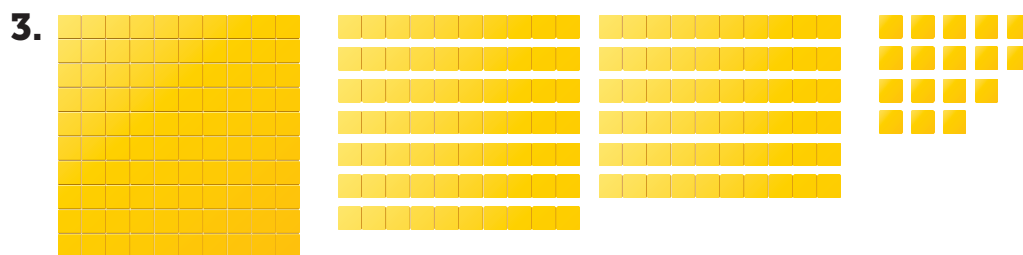## Key Idea

10 tens = 1 hundred

Try This

Circle groups of 10 rods. Write how many **hundreds,** how many **tens,** and how many **ones** there are for each model.

1.

_____ hundreds and _____ tens

2.

_____ hundreds and _____ tens

3.

_____ hundreds, _____ tens, and _____ ones

4. **Draw** 13 rods and 23 unit blocks in the number construction mat below. Then regroup to use the fewest base-ten blocks possible. What number is modeled? _____

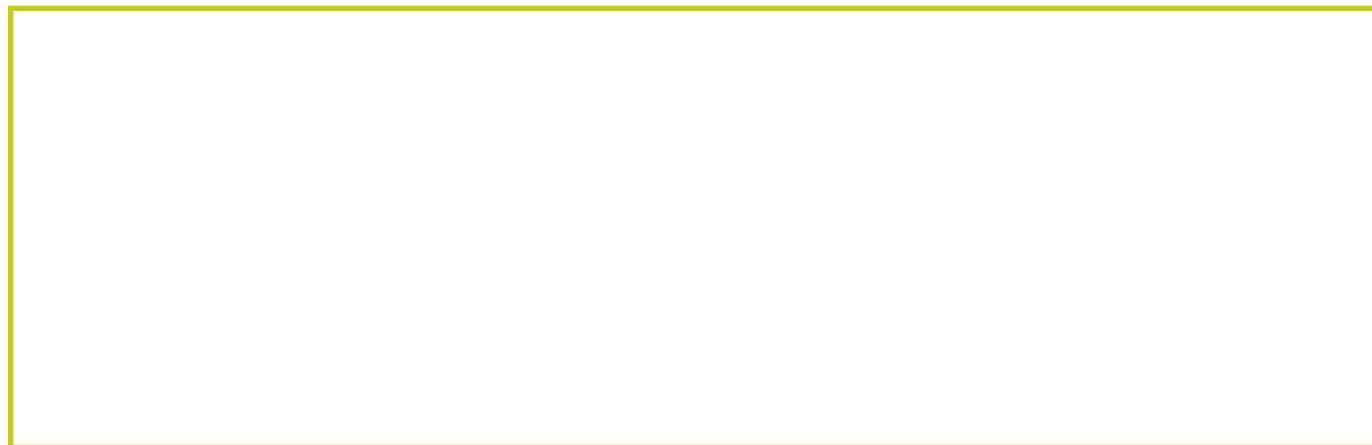| Hundreds	Tens	Ones

Practice

Make trades. Write each number in standard form. Use base-ten blocks if needed.

5. 3 hundreds and 28 tens _____

6. 4 hundreds, 7 tens, and 22 ones _____

7. 1 hundred, 35 tens, and 38 ones _____

8. 4 hundreds, 18 tens, and 24 ones _____

Reflect

Draw 210 using flats and rods. Finally, draw 210 using the fewest base-ten blocks possible.

Lesson 5 Review

This week you explored place value. You identified the numbers of hundreds, tens, and ones in two- and three-digit numbers. You also traded among ones, tens, and hundreds to represent the same number in different ways.

Lesson 1 **Write** how many tens and ones are in each number.

1. 37

___ tens ___ ones

2. 73

___ tens ___ ones

3. 20

___ tens ___ ones

4. 9

___ tens ___ ones

5. 88

___ tens ___ ones

Lesson 2 **Write** how many hundreds, tens, and ones are in each number.

6. 205

___ hundreds ___ tens ___ ones

7. 148

___ hundreds ___ tens ___ ones

8. 29

___ hundreds ___ tens ___ ones

9. 580

___ hundreds ___ tens ___ ones

10. 985

___ hundreds ___ tens ___ ones

Lesson 3 **Write** each number in different ways.

11. 25

___ tens and ___ ones

___ tens and ___ ones

12. 36

___ tens and ___ ones

___ tens and ___ ones

___ tens and ___ ones

Make trades. Write each number in standard form. Use base-ten blocks if needed.

13. 4 tens and 34 ones   ___

14. 5 tens and 21 ones   ___

15. 8 tens and 18 ones   ___

Lesson 4 **Write** each number in different ways.

16. 160

___ hundreds and ___ tens

___ hundreds and ___ tens

17. 230

___ hundreds and ___ tens

___ hundreds and ___ tens

___ hundreds and ___ tens

Make trades. Write each number in standard form. Use base-ten blocks if needed.

18. 4 hundreds and 18 tens   _____

19. 3 hundreds, 16 tens, and 17 ones   _____

20. 5 hundreds, 28 tens, and 29 ones   _____

Reflect

Explain why the same digit can have different values within a number. Give an example.

Project
Video Game Level-Up

1. **Write** the name of your video game.

   _____

2. **Draw** three objects you collect in the first level of the game.

3. **Assign** a point value to each object—1 point, 10 points, or 100 points. Write the point value next to each object.

4. **Roll** a Number Cube for each object to find how many of that object you collect in this level. Record your results in the table.

Object	Point Value	Number Rolled
	1 point	
	10 points	
	100 points	

Total Points
____ ____ ____

5. **Write** the total number of points you scored in this level in the Total Points box.

Reflect
Explain why you could not write the digits in a different order.

_____

_____

NUMBER WORLDS™

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