Name **Answer Key**

1

a. I am thinking of a secret number. If you **double** it and then multiply by 10, the number you get is 100. Can you tell me what my secret number is?

b. I am thinking of a secret number. If you **double** it and then multiply by 10, the number you get ends in 0. Can you tell me what my secret number is?

ANSWER: **a.** Yes, 5. **b.** No, need more information.

COMMENTS & EXTENSIONS: Change Part **b** to, "What can you tell me about my secret number?" To answer this, have students write down numbers that the secret number could be and then find a pattern. Any number multiplied by 10 ends in 0, so the answer can be any number.

Make up your own questions like these where

a. there are many answers. **b.** there is only one answer.

Exchange your questions with a partner and answer them.

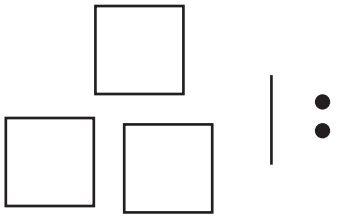
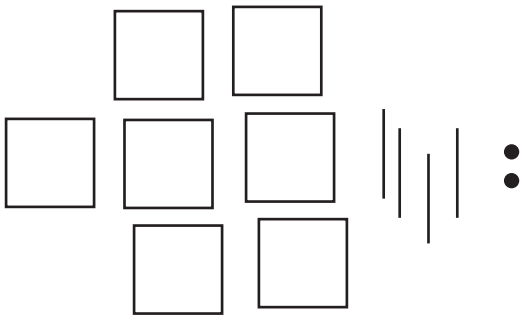
Name **Answer Key**

Try This

Write 312,742 in word form and in expanded form.

- Model the number using Base Ten Blocks.
- Draw the model and use it to write your answers.

Think: 312 thousands on the left of the comma and 742 ones on the right.

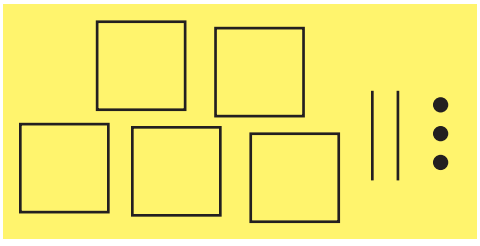
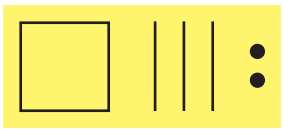
Thousands	Ones
	

Write: Three hundred twelve thousand, seven hundred forty-two.

Think: 300 thousand + 10 thousand + 2 thousand + 700 + 40 + 2.

Write: 300,000 + 10,000 + 2,000 + 700 + 40 + 2

1. Write 523,132 in word form and in expanded form.

Thousands	Ones
	

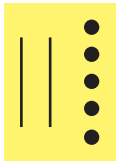
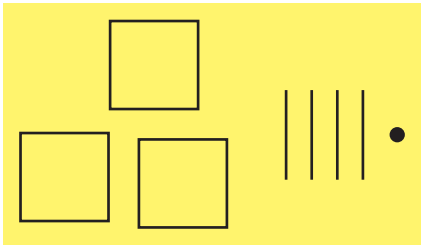
Word form: Five hundred twenty-three thousand, one hundred thirty-two

Expanded form: 500,000 + 20,000 + 3,000 + 100 + 30 + 2

continued on the next page

Name **Answer Key**

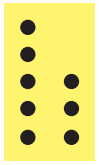
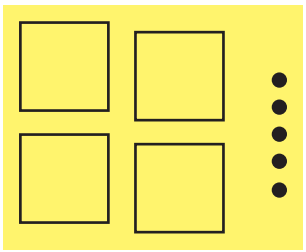
2. Write 25,341 in word form and in expanded form.

Thousands	Ones
	

Word form: Twenty-five thousand, three hundred forty-one

Expanded form: 20,000 + 5,000 + 300 + 40 + 1

3. Write 8,405 in word form and in expanded form.

Thousands	Ones
	

Word form: Eight thousand, four hundred five

Expanded form: 8,000 + 400 + 5

Write the number.

4. Write 129,745 in word form.

One hundred twenty-nine thousand, seven hundred forty-five

continued on the next page

Name **Answer Key**

5. Write six hundred seven thousand, three hundred twenty-nine in expanded form.

600,000 + 7,000 + 300 + 20 + 9

6. Write forty thousand, six hundred fifteen in standard form.

40,615

7. Write 3,000 + 800 + 30 + 6 in standard form.

3,836

8. Pam's store just received an order of pencils. The shipment contained seven packs of 10 pencils, nine boxes of 100 pencils, and two boxes of 1,000 pencils. How many pencils did she receive?

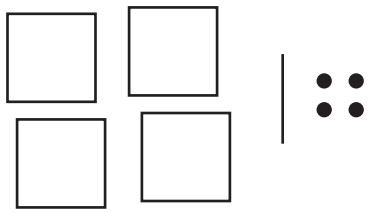
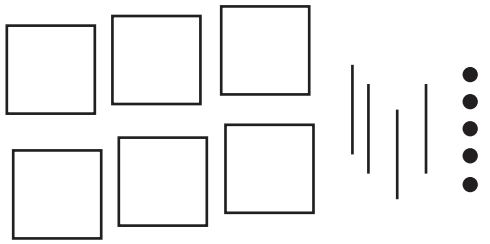
2,970

Name **Answer Key**

Use Base Ten Blocks to build the model. Use the model to complete the problem.

1. Write 414,645 in word form and in expanded form.

Think: 414 thousands on the left of the comma and 645 ones on the right.

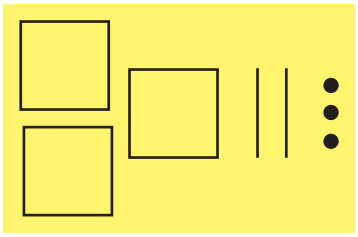
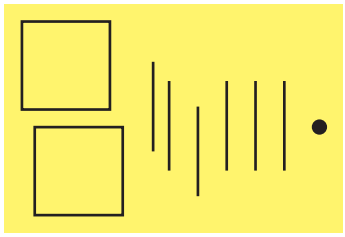
Thousands	Ones
	

Word form: Four hundred fourteen thousand, six hundred forty-five

Expanded form: 400,000 + 10,000 + 4,000 + 600 + 40 + 5

Use Base Ten Blocks to model the problem. Draw the model and use it to complete the problem.

2. Write 323,261 in word form and in expanded form.

Thousands	Ones
	

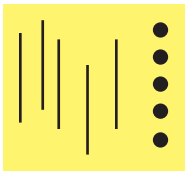
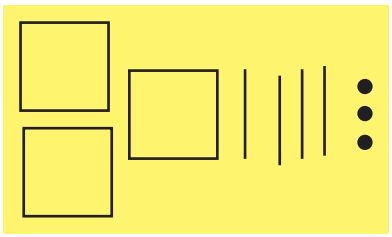
Word form: Three hundred twenty-three thousand, two hundred sixty-one

Expanded form: 300,000 + 20,000 + 3,000 + 200 + 60 + 1

continued on the next page

Name **Answer Key**

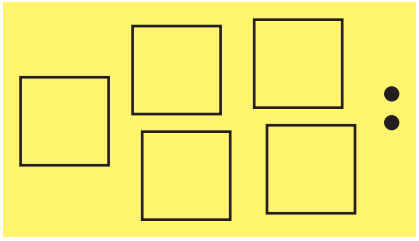
3. Write 55,343 in word form and in expanded form.

Thousands	Ones
	

Word form: Fifty-five thousand, three hundred forty-three

Expanded form: 50,000 + 5,000 + 300 + 40 + 3

4. Write 4,502 in word form and in expanded form.

Thousands	Ones
	

Word form: Four thousand, five hundred two

Expanded form: 4,000 + 500 + 2

continued on the next page

Name **Answer Key**

Write the number.

5. Write 239,725 in word form.

Two hundred thirty-nine thousand, seven hundred twenty-five

6. Write five hundred four thousand, three hundred twenty-one in expanded form.

500,000 + 4,000 + 300 + 20 + 1

7. Write ten thousand, two hundred twenty-five in standard form.

10,225

8. Write 9,000 + 600 + 10 + 4 in standard form.

9,614

Name **Answer Key**

2

a. If you write the numbers 1 to 99, how many 5s do you write?

b. If you were to write 101 to 199, would you write the same number of 5s?

ANSWER: **a.** 20; **b.** yes

COMMENTS & EXTENSIONS: Is the number of 5s the same in 101 to 199 as in 201 to 299? [yes] Explain your answer. Is the number of 5s the same for all three-digit ranges starting with 01? [yes] Why start with 01 (301, for example) instead of 00 (300)? [The range starting with 500 would have one additional 5.]

Name **Answer Key**

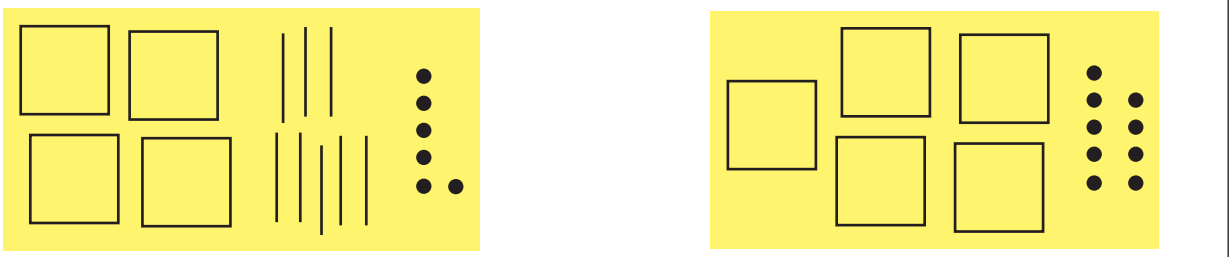
Try This

- Use Base Ten Blocks to model the numbers.
- Draw your models.
- Compare the numbers and decide which is greater and which is less.
- Write < or > in the circle.

678 > 413

Think: 6 hundreds are greater than 4 hundreds. So 678 > 413.

1. 486 < 509



2. 274 < 286

continued on the next page

Name **Answer Key**

Use a < or > sign to compare the numbers.

3. 5,478 < 6,734

4. 54,470 > 34,973

5. 568,721 < 738,915

Answer each question.

6. John read 4,873 minutes over the school year. Sun-Hee read 5,937 minutes. John says that he read more because 73 is more than 37. Is John correct?

No, John is not correct. Sun-Hee read more minutes.

How do you know?

When you compare numbers you look at the greatest-valued place, which in this case is the thousands place. Four thousands are less than 5 thousands, so 5,937 is greater than 4,873.

7. In 2010, the population of Stockton, California, was 290,912. The population of Anchorage, Alaska, was 291,826. Which city had fewer people?

Stockton.

How do you know?

Since both numbers extend to the hundred-thousands place, you compare those digits. Since they both have 2 hundred-thousands, you go to the next greatest place, the ten-thousands. Since they both have 9 ten-thousands, you compare the next greatest place, the thousands place. Zero thousands is less than 1 thousand, so 290,912 is less than 291,826.

Name **Answer Key**

Use Base Ten Blocks to build each number. Compare the numbers.

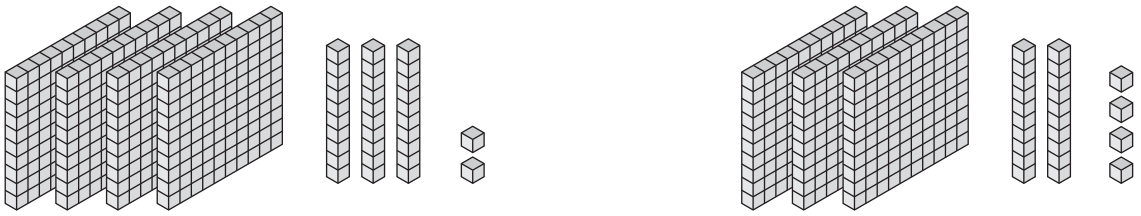
Write < or > in the ◯.

1.

69	<	96

2.

432	>	324



Use Base Ten Blocks to model each number. Draw the models.

Compare the numbers and write < or > in the ◯.

3.

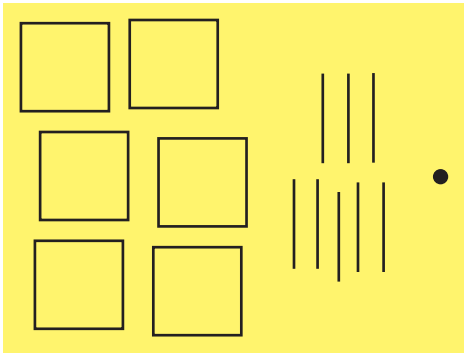
75	>	57

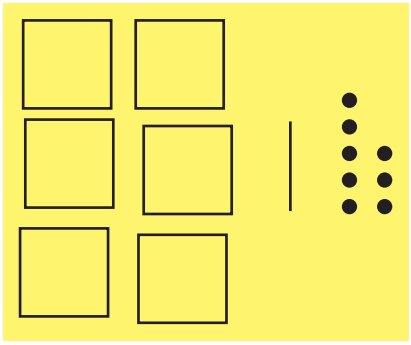
continued on the next page

Name **Answer Key**

4.

681	>	618





Compare the numbers and write < or > in the ◯.

5. 84 (>) 83

6. 109 (<) 351

7. 456 (<) 465

8. 1,568 (<) 2,956

9. 4,905 (>) 4,678

10. 31,731 (<) 31,745

Name **Answer Key**

3

Without multiplying, circle the one that is greater and tell how much greater.

a. 7×10 7×11

b. 42×5 40×5

c. 301×16 300×16

d. 194×2 194×3

ANSWER: **a.** 7×11 is greater by 7. **b.** 42×5 is greater by 10. **c.** 301×16 is greater by 16. **d.** 194×3 is greater by 194.

COMMENTS & EXTENSIONS: The point here is that number facts and computations are not isolated atoms to be committed to memory by rote. There are relations one can use to make things sensible. For example, eleven sevens is 7 more than ten sevens.

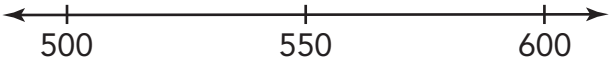
Name **Answer Key**

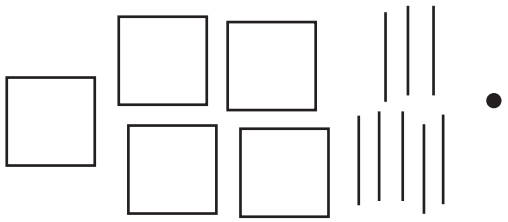
Try This

Harksville School sold 581 books at the book fair. To the nearest hundred, about how many books is this?

- Draw and label a line segment for the problem.
- Use Base Ten Blocks to model the number.
- Use your number line and model to solve the problem.

Think: Round 581 to the nearest hundred.

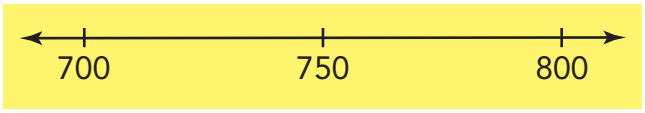


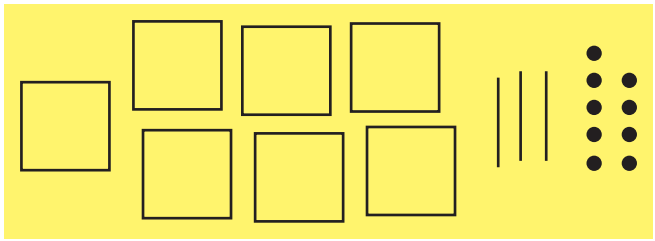


The nearest hundred is 600.

1. The Chang family traveled 739 miles to Florida. To the nearest hundred, about how many miles is this?

700 miles

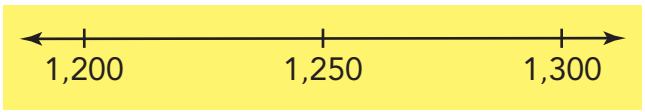


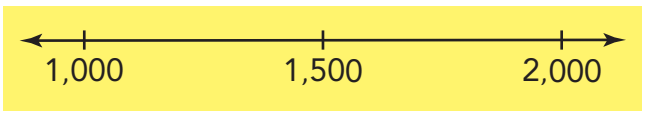


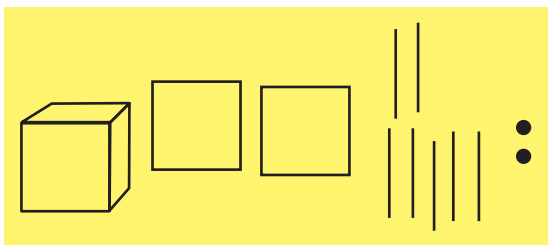
2. Ruth's house is 1,272 feet from the road. Round the number of feet to the nearest hundred and the nearest thousand.

Nearest hundred: 1,300 feet

Nearest thousand: 1,000 feet







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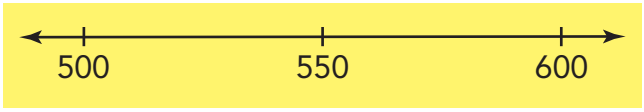
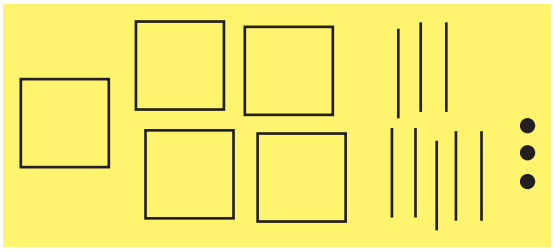
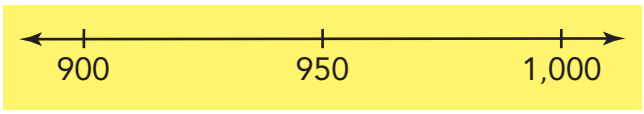
Name **Answer Key**

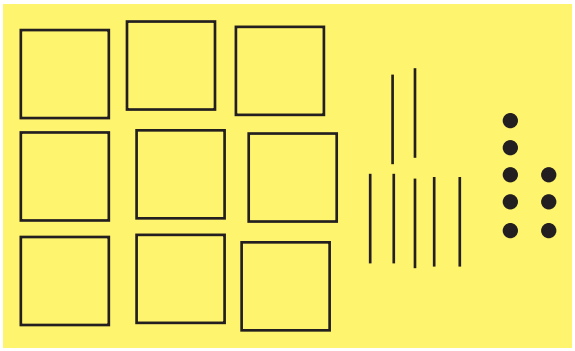
3. If you round each number in the range 583 to 978 to the nearest hundred, what answers could you get?

600, 700, 800, 900, 1,000









Solve the problem.

4. I am a number that rounds to 600. What can I be? Justify your answer.

Assuming the number is rounded to the nearest hundred, the number can be any number from 550 to 649.

5. Jeffrey has about 1,000 baseball cards. Marco has 1,140 baseball cards. Is it possible for Jeffrey to have more baseball cards than Marco? Justify your answer.

Yes. If the number of baseball cards Jeffrey has was rounded to the nearest thousand, he could have any number of cards from 500 to 1,499. If he has from 1,141 to 1,499, he has more baseball cards than Marco.

Round each number to the nearest ten thousand and to the nearest hundred thousand.

6. 222,702

Nearest ten thousand: 220,000

Nearest hundred thousand: 200,000

7. 967,610

Nearest ten thousand: 970,000

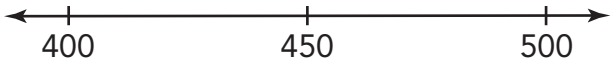
Nearest hundred thousand: 1,000,000

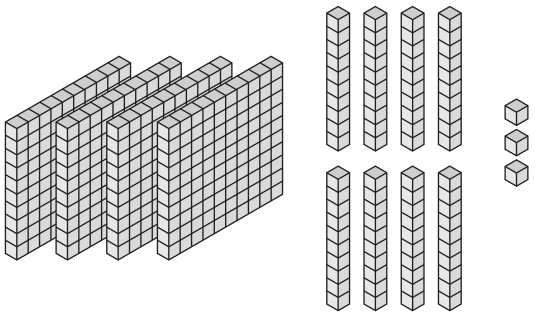
Name **Answer Key**

Use Base Ten Blocks to build the model. Use the model and the number line to solve the problem.

1. Aston traveled 483 miles in one week. To the nearest hundred, about how many miles is this?

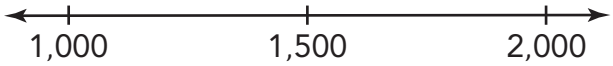
500 miles

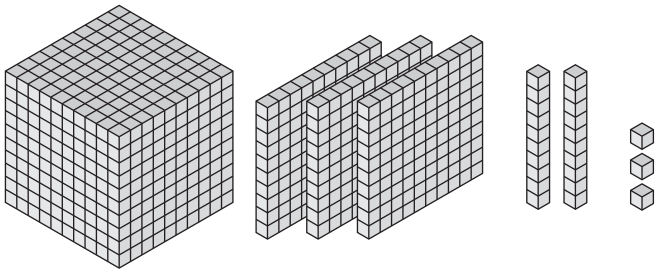




2. Jackson rode his new motorcycle 1,323 miles last month. To the nearest thousand, about how many miles is this?

1,000 miles



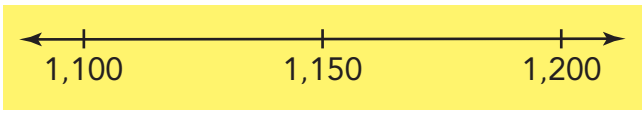


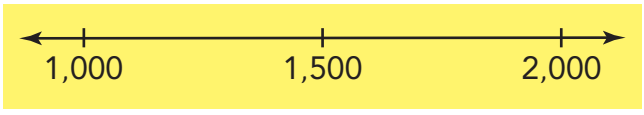
Sketch Base Ten Blocks models and number lines to help you solve the problem.

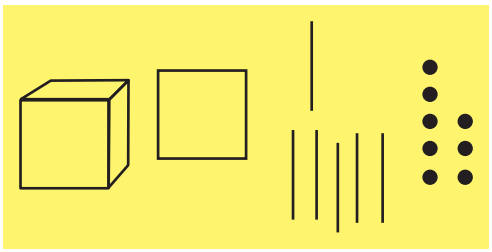
3. Sarah swam 1,168 meters yesterday. Round the number of meters to the nearest hundred and the nearest thousand.

Nearest hundred: 1,200 meters

Nearest thousand: 1,000 meters







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Name **Answer Key**

Solve the problem.

4. I am a number that rounds to 700. What can I be? Justify your answer.

If the number is rounded to the nearest 100, the number could be any number from 650 to 749.

5. Samantha's class read about 300 books last month. Vijay's class read 333 books last month. Is it possible for Samantha's class to have read more books than Vijay's? Justify your answer.

Yes. If the number of books is rounded to the nearest hundred, Samantha's class could have read from 334 to 349 books.

6. During football season, four players gained yards carrying or catching the ball. Jack gained 128 yards, José 132 yards, Derek 148 yards, and Darnell 188 yards. To make record keeping easier, the coach rounded yards gained to the nearest 100 yards. Which yardage would be rounded to 200?

Darnell's. His yardage of 188 would be rounded to 200.

Round each number to the nearest ten thousand and the nearest hundred thousand.

7. 546,769

Nearest ten thousand: 550,000

Nearest hundred thousand: 500,000

8. 992,449

Nearest ten thousand: 990,000

Nearest hundred thousand: 1,000,000

Name **Answer Key**

4

Here are 4 number cards.

4	1	7	3

Put them in place to make the greatest possible answer.

a. $\square\square + \square\square$

b. $\square\square - \square\square$

ANSWER: **a.** 71 + 43 (or 73 + 41); **b.** 74 – 13

COMMENTS & EXTENSIONS: Activities of this type promote students' understanding of place value. Do students see that they should place the greater numbers in the tens places in Part **a** for example? Do they realize for Part **b** that they should subtract the least possible number from the greatest possible number?

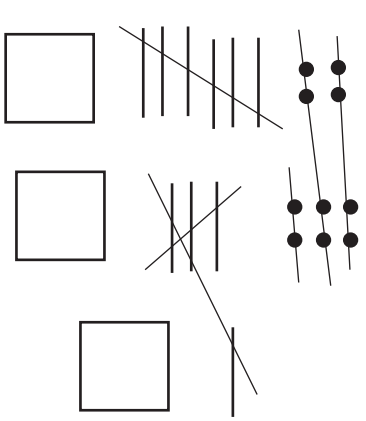
Name **Answer Key**

Try This

At Ian's school there are 164 students in third grade and 136 students in fourth grade. How many students are there in both grades combined? How many more students are in third grade than are in fourth grade?

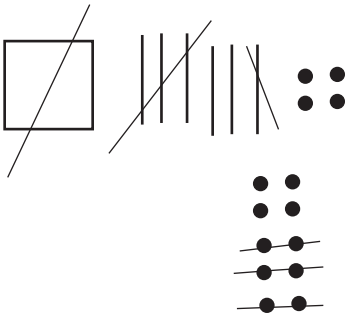
- Use Base Ten Blocks.
- Show how you model and solve the problem.

Think: Add 164 + 136



$$\begin{array}{r} {\scriptstyle 11} \\ 164 \\ +\ 136 \\ \hline 300 \end{array}$$

Think: Subtract 164 – 136



$$\begin{array}{r} {\scriptstyle 5\,14} \\ 1\not{6}\not{4} \\ -\ 136 \\ \hline 28 \end{array}$$

There are 300 students in both grades combined.

There are 28 more students in third grade.

1. Gary was playing his favorite video game. In the first round he scored 212 points, and in the second round he scored 202 points.

How many points did Gary score in all? 414

How many more points did he score in the first round than he did in the second round? 10

Models will vary. Check student's work.

continued on the next page

Name Answer Key

2. At the dog show there were 319 large dogs and 203 small dogs.

How many dogs were at the dog show? 522

How many more large dogs than small dogs were at the show?

116

Models will vary. Check student's work.

3. While building a house, a builder used 1,387 nails on the first floor and 927 nails on the second floor.

How many nails did he use in all, on both floors? 2,314

How many fewer nails did he use on the second floor than on the first floor? 460

Models will vary. Check student's work.

continued on the next page

Name **Answer Key**

Add or subtract.

4.
$$\begin{array}{r} 825 \\ +\ 327 \\ \hline 1{,}152 \end{array}$$

5.
$$\begin{array}{r} 1{,}293 \\ +\ 3{,}310 \\ \hline 4{,}603 \end{array}$$

6.
$$\begin{array}{r} 12{,}667 \\ +\ 13{,}334 \\ \hline 26{,}001 \end{array}$$

7.
$$\begin{array}{r} 1{,}523 \\ -\ 912 \\ \hline 611 \end{array}$$

8.
$$\begin{array}{r} 14{,}544 \\ -\ 11{,}620 \\ \hline 2{,}924 \end{array}$$

9.
$$\begin{array}{r} 48{,}333 \\ -\ 37{,}345 \\ \hline 10{,}988 \end{array}$$

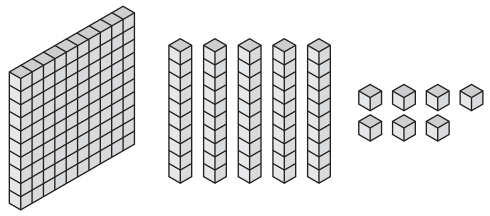
Name **Answer Key**

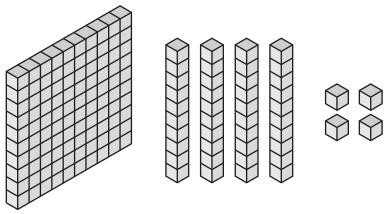
Use Base Ten Blocks to build the model. Use the model to complete the problem.

1. At Marcel's school, there are 157 students in third grade and 144 students in fourth grade.

How many students are there in both grades combined?

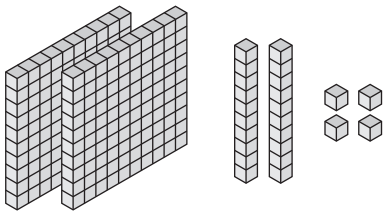
301

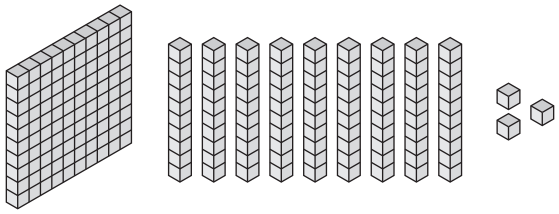




2. At Maxine's school, there are 224 students in third grade and 193 students in fourth grade. How many more students are in third grade than are in fourth grade?

31





Use Base Ten Blocks. Draw a model, and use it to complete the problem.

3. Cullen started reading a new mystery series. The first book was 496 pages long, and the next book had 349 pages. How many pages were in both books combined?

845

Models will vary. Check student's work.

continued on the next page

Name **Answer Key**

Models will vary. Check student's work.

4. During a Super Saturday Sale, a clothing store sold 398 tank tops and 465 T-shirts. How many more T-shirts than tank tops did the store sell?

67

Models will vary. Check student's work.

Add or subtract.

5.
$$\begin{array}{r} 725 \\ +\ 227 \\ \hline 952 \end{array}$$

6.
$$\begin{array}{r} 1{,}394 \\ +\ 3{,}210 \\ \hline 4{,}604 \end{array}$$

7.
$$\begin{array}{r} 11{,}557 \\ +\ 14{,}335 \\ \hline 25{,}892 \end{array}$$

8.
$$\begin{array}{r} 1{,}413 \\ -\ 913 \\ \hline 500 \end{array}$$

9.
$$\begin{array}{r} 15{,}634 \\ -\ 11{,}650 \\ \hline 3{,}984 \end{array}$$

10.
$$\begin{array}{r} 35{,}220 \\ -\ 30{,}344 \\ \hline 4{,}876 \end{array}$$