

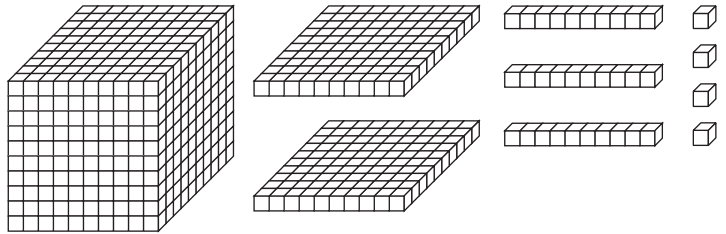
# LETTER HOME

## Place Value Concepts

Dear Family Member:

For the next two weeks, your child will study place value—how to tell that the 1 in the number 15, for example, has a value of ten, whereas the 1 in 105 has a value of one hundred. We will be working with numbers through the thousands. This unit lays the groundwork for addition, subtraction, and multiplication of larger numbers, which we will study later.

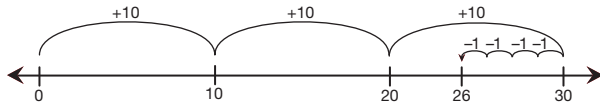
We will use base-ten pieces and number lines to explore place value. Base-ten pieces, shown here, are blocks that come in groups of ones, tens, hundreds, and thousands. The values of different numbers become visible when the numbers are shown using base-ten pieces.



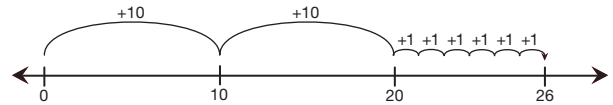
Base-ten pieces help children visualize a number's value.

These pieces show 1234.

Students will use number lines to represent numbers using “hops” of one, ten, or 100. They will write number sentences to represent their moves. For example, they can move from one to 26 in more than one way.



$$10 + 10 + 10 - 4 = 26$$



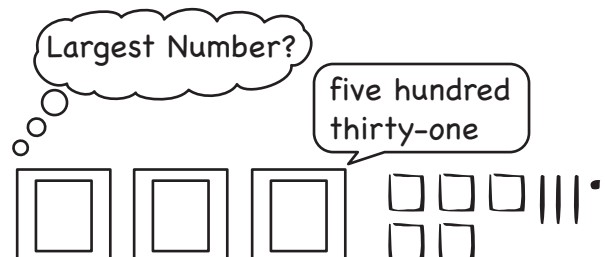
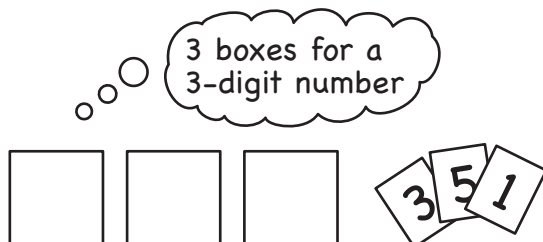
$$10 + 10 + 6 = 26$$

Use the following activities to help your child at home:

- **Base-Ten Shorthand.** Students will learn a simple way to record different numbers of base-ten pieces on paper. Ask your child to show you how to write some numbers between 1 and 9999 with “base-ten shorthand.”



- **Number Lines.** Ask your child to draw number lines and show you two ways to go from 0 to a two-digit or three-digit number using hops of one, ten, and one-hundred.
- **Read and Write Large Numbers.** Ask your child how to play Spin, Place, and Read. Draw a box for each digit of a multidigit number. Randomly select the same number of digits from 0 to 9. Place the digits in the boxes to make the largest (or smallest) number. Read the number correctly and show that number using base-ten shorthand or a number line.



## Math Facts and Mental Math

This unit continues the review of the subtraction facts and development of the multiplication facts. Help your child using the activities below.

**Subtraction Facts.** Students review the following subtraction facts to maintain and increase proficiency and to learn to apply subtraction strategies to larger numbers:

Group 5:  $7 - 3$ ,  $7 - 5$ ,  $7 - 2$ ,  $11 - 2$ ,  $8 - 6$ ,  $5 - 3$ ,  $8 - 2$ ,  $4 - 2$ ,  $5 - 2$

Group 6:  $6 - 4$ ,  $6 - 2$ ,  $13 - 5$ ,  $8 - 5$ ,  $8 - 3$ ,  $13 - 8$ ,  $12 - 8$ ,  $12 - 4$ ,  $12 - 3$

You can help your child review these facts using the flash cards the teacher sends home or by making a set of flash cards from index cards or scrap paper. Study the facts in small groups each night. As your child goes through the flash cards, put the cards in three stacks: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn.

For Facts I Need to Learn, work on strategies for figuring them out. Good strategies for the facts in Groups 5 and 6:

Counting. Count up from the smaller number. For example, for  $7 - 5$ : Start at 5 and count up 2 more to get 7, so  $7 - 5 = 2$ . Or, for  $11 - 2$ , count back from the larger number: start at 11 and count back 10, 9. So,  $11 - 2 = 9$ .

Thinking Addition. To find  $13 - 8$ , think, "What number plus 8 equals 13?"  $8 + 5 = 13$ , so  $13 - 8 = 5$ .

For Facts I Can Figure Out, use the flash cards to practice the facts for fluency.

For Facts I Know Quickly, help your child use strategies to solve problems like these using mental math:







Subtracting 10s and 100s:  $700 - 500$ ,  $110 - 20$ ,  $130 - 80$

Two-digit minus one-digit problems based on the fact groups:  $27 - 5$  (practices  $7 - 5$ ),  $31 - 2$  (practices  $11 - 2$ ),  $43 - 8$  (practices  $13 - 8$ )

**Multiplication Facts.** Students work on developing number sense for the multiplication facts for the 2s and 3s in this unit. This will help them remember the facts as they develop proficiency. Ask your child to write a story, draw a picture, and complete number sentences for one or two facts each night. Follow these examples:

**Example:**  $3 \times 5 = \square$

**Example:**  $\square \times 2 = 12$

<p>There are 5 school days in one week. When we go to school for 3 weeks, we go 3 times 5, or 15 days.</p> <p style="text-align: center;"><math>3 \times 5 = 15</math> days</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 2px 10px;">M</td> <td style="padding: 2px 10px;">T</td> <td style="padding: 2px 10px;">W</td> <td style="padding: 2px 10px;">TH</td> <td style="padding: 2px 10px;">F</td> <td style="padding: 2px 10px;">5</td> </tr> <tr> <td style="padding: 2px 10px;">M</td> <td style="padding: 2px 10px;">T</td> <td style="padding: 2px 10px;">W</td> <td style="padding: 2px 10px;">TH</td> <td style="padding: 2px 10px;">F</td> <td style="padding: 2px 10px;">5</td> </tr> <tr> <td style="padding: 2px 10px;">M</td> <td style="padding: 2px 10px;">T</td> <td style="padding: 2px 10px;">W</td> <td style="padding: 2px 10px;">TH</td> <td style="padding: 2px 10px;">F</td> <td style="padding: 2px 10px;"><math>\begin{array}{r} + 5 \\ \hline 15 \end{array}</math></td> </tr> </table>	M	T	W	TH	F	5	M	T	W	TH	F	5	M	T	W	TH	F	$\begin{array}{r} + 5 \\ \hline 15 \end{array}$	<p>Birds have two legs. Six birds have 6 times 2 legs. That's <math>6 \times 2 = 12</math> legs.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>2</p> </div> <div style="text-align: center;">  <p>4</p> </div> <div style="text-align: center;">  <p>6</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;">  <p>8</p> </div> <div style="text-align: center;">  <p>10</p> </div> <div style="text-align: center;">  <p>12</p> </div> </div>
M	T	W	TH	F	5														
M	T	W	TH	F	5														
M	T	W	TH	F	$\begin{array}{r} + 5 \\ \hline 15 \end{array}$														

Thank you for taking time to talk with your child about what he or she is doing in math.

Sincerely,

# Unit 4: Home Practice

## Part 1 Mental Math Strategies

1. A.  $12 - 4 = \underline{\quad}$                       2. A.  $3 + 8 = \underline{\quad}$   
B.  $52 - 4 = \underline{\quad}$                       B.  $43 + 8 = \underline{\quad}$   
C.  $72 - 4 = \underline{\quad}$                       C.  $123 + 8 = \underline{\quad}$
3. Kim's class has 34 students in it. Draw a picture to show how many teams of four can be formed. Write a number sentence to describe this problem.
4. A. Skip count by tens from 100 to 300.  
\_\_\_\_\_
- B. Skip count by hundreds from 100 to 1000.  
\_\_\_\_\_

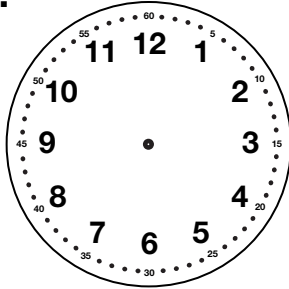
## Part 2 Break Apart Numbers

1. A.  $80 - 20 = \underline{\quad}$                       2. A.  $110 - 20 = \underline{\quad}$   
B.  $30 + 40 = \underline{\quad}$                       B.  $30 + 90 = \underline{\quad}$   
C.  $50 - 30 = \underline{\quad}$                       C.  $130 - 50 = \underline{\quad}$
3. Break the following numbers into two, three, or four parts.
- A.  $79 = \underline{\quad} + \underline{\quad}$
- B.  $507 = \underline{\quad} + \underline{\quad}$   
 $507 = \underline{\quad} + \underline{\quad} + \underline{\quad}$
- C.  $1551 = \underline{\quad} + \underline{\quad} + \underline{\quad}$   
 $1551 = \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad}$

**Part 3 Time and Money**

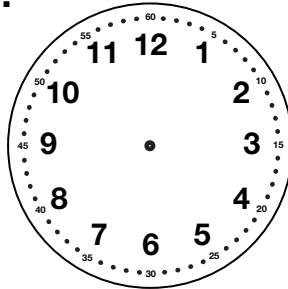
1. Use the clocks to draw the minute and hour hands for the time that the activity begins.

**A.**



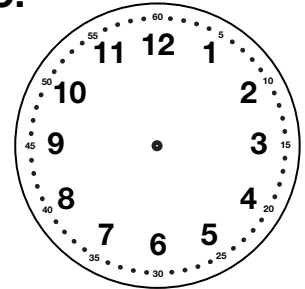
I brush my teeth before school.

**B.**



I go to bed.

**C.**



I do my homework.

2. Maruta works part-time at the TIMS Candy Company. She starts work at 8 A.M. and leaves at 11:30 A.M. How many hours does she work?

\_\_\_\_\_

3. **A.** Emily has 7 dimes and 25 pennies. How much money does she have?

\_\_\_\_\_

**B.** If she traded the pennies for as many dimes as possible, how many dimes would she have in all?

\_\_\_\_\_

**C.** How many pennies would be left over?

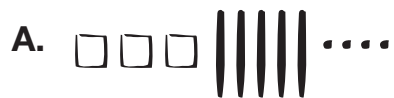
\_\_\_\_\_

4. Jason has 3 dollars, 2 dimes, and 7 pennies. If he trades his money for all pennies, how many pennies will he have?

\_\_\_\_\_

### Part 4 Showing Numbers

1. Write a number sentence that shows the value of the base-ten pieces. The first one is done for you.



$354 = 300 + 50 + 4$

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2. Use base-ten shorthand to represent the following numbers.

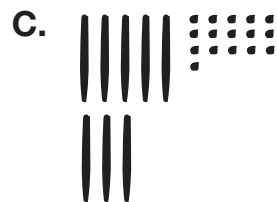
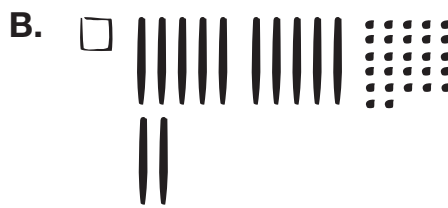
A. 76

B. 129

C. 32

D. 344

3. Write the number using the Fewest Pieces Rule.



$$\begin{array}{r} 4 \\ - 2 \\ \hline \end{array}$$

Group 5

$$\begin{array}{r} 8 \\ - 2 \\ \hline \end{array}$$

Group 5

$$\begin{array}{r} 11 \\ - 2 \\ \hline \end{array}$$

Group 5

$$\begin{array}{r} 7 \\ - 2 \\ \hline \end{array}$$

Group 5

$$\begin{array}{r} 5 \\ - 2 \\ \hline \end{array}$$

Group 5

$$\begin{array}{r} 7 \\ - 3 \\ \hline \end{array}$$

Group 5

$$\begin{array}{r} 5 \\ - 3 \\ \hline \end{array}$$

Group 5

$$\begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

Group 5

$$\begin{array}{r} 8 \\ - 6 \\ \hline \end{array}$$

Group 5

9

Group 5

6

Group 5

2

Group 5

4

Group 5

3

Group 5

5

Group 5

2

Group 5

2

Group 5

2

Group 5

$$\begin{array}{r} 12 \\ - 8 \\ \hline \end{array}$$

Group 6

$$\begin{array}{r} 12 \\ - 4 \\ \hline \end{array}$$

Group 6

$$\begin{array}{r} 13 \\ - 5 \\ \hline \end{array}$$

Group 6

$$\begin{array}{r} 13 \\ - 8 \\ \hline \end{array}$$

Group 6

$$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array}$$

Group 6

$$\begin{array}{r} 8 \\ - 3 \\ \hline \end{array}$$

Group 6

$$\begin{array}{r} 6 \\ - 4 \\ \hline \end{array}$$

Group 6

$$\begin{array}{r} 6 \\ - 2 \\ \hline \end{array}$$

Group 6

$$\begin{array}{r} 12 \\ - 3 \\ \hline \end{array}$$

Group 6



8

Group 6

8

Group 6

4

Group 6

5

Group 6

3

Group 6

5

Group 6

9

Group 6

4

Group 6

2

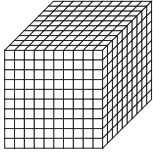
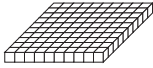


Group 6

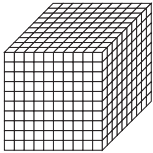
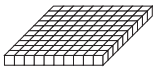


# Subtraction Facts I Know

Circle the subtraction facts you know and can answer quickly. Underline those facts that you know when you use a strategy. Do nothing to those facts that you still need to learn.

	A	B	C	D	E	F	G	H
<b>2</b>	$\begin{array}{r} 4 \\ -2 \\ \hline 2 \end{array}$	$\begin{array}{r} 5 \\ -2 \\ \hline 3 \end{array}$	$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$	$\begin{array}{r} 7 \\ -2 \\ \hline 5 \end{array}$	$\begin{array}{r} 8 \\ -2 \\ \hline 6 \end{array}$	$\begin{array}{r} 9 \\ -2 \\ \hline 7 \end{array}$	$\begin{array}{r} 10 \\ -2 \\ \hline 8 \end{array}$	$\begin{array}{r} 11 \\ -2 \\ \hline 9 \end{array}$
<b>3</b>	$\begin{array}{r} 5 \\ -3 \\ \hline 2 \end{array}$	$\begin{array}{r} 6 \\ -3 \\ \hline 3 \end{array}$	$\begin{array}{r} 7 \\ -3 \\ \hline 4 \end{array}$	$\begin{array}{r} 8 \\ -3 \\ \hline 5 \end{array}$	$\begin{array}{r} 9 \\ -3 \\ \hline 6 \end{array}$	$\begin{array}{r} 10 \\ -3 \\ \hline 7 \end{array}$	$\begin{array}{r} 11 \\ -3 \\ \hline 8 \end{array}$	$\begin{array}{r} 12 \\ -3 \\ \hline 9 \end{array}$
<b>4</b>	$\begin{array}{r} 6 \\ -4 \\ \hline 2 \end{array}$	$\begin{array}{r} 7 \\ -4 \\ \hline 3 \end{array}$	$\begin{array}{r} 8 \\ -4 \\ \hline 4 \end{array}$	$\begin{array}{r} 9 \\ -4 \\ \hline 5 \end{array}$	$\begin{array}{r} 10 \\ -4 \\ \hline 6 \end{array}$	$\begin{array}{r} 11 \\ -4 \\ \hline 7 \end{array}$	$\begin{array}{r} 12 \\ -4 \\ \hline 8 \end{array}$	$\begin{array}{r} 13 \\ -4 \\ \hline 9 \end{array}$
<b>5</b>	$\begin{array}{r} 7 \\ -5 \\ \hline 2 \end{array}$	$\begin{array}{r} 8 \\ -5 \\ \hline 3 \end{array}$	$\begin{array}{r} 9 \\ -5 \\ \hline 4 \end{array}$	$\begin{array}{r} 10 \\ -5 \\ \hline 5 \end{array}$	$\begin{array}{r} 11 \\ -5 \\ \hline 6 \end{array}$	$\begin{array}{r} 12 \\ -5 \\ \hline 7 \end{array}$	$\begin{array}{r} 13 \\ -5 \\ \hline 8 \end{array}$	$\begin{array}{r} 14 \\ -5 \\ \hline 9 \end{array}$
<b>6</b>	$\begin{array}{r} 8 \\ -6 \\ \hline 2 \end{array}$	$\begin{array}{r} 9 \\ -6 \\ \hline 3 \end{array}$	$\begin{array}{r} 10 \\ -6 \\ \hline 4 \end{array}$	$\begin{array}{r} 11 \\ -6 \\ \hline 5 \end{array}$	$\begin{array}{r} 12 \\ -6 \\ \hline 6 \end{array}$	$\begin{array}{r} 13 \\ -6 \\ \hline 7 \end{array}$	$\begin{array}{r} 14 \\ -6 \\ \hline 8 \end{array}$	$\begin{array}{r} 15 \\ -6 \\ \hline 9 \end{array}$
<b>7</b>	$\begin{array}{r} 9 \\ -7 \\ \hline 2 \end{array}$	$\begin{array}{r} 10 \\ -7 \\ \hline 3 \end{array}$	$\begin{array}{r} 11 \\ -7 \\ \hline 4 \end{array}$	$\begin{array}{r} 12 \\ -7 \\ \hline 5 \end{array}$	$\begin{array}{r} 13 \\ -7 \\ \hline 6 \end{array}$	$\begin{array}{r} 14 \\ -7 \\ \hline 7 \end{array}$	$\begin{array}{r} 15 \\ -7 \\ \hline 8 \end{array}$	$\begin{array}{r} 16 \\ -7 \\ \hline 9 \end{array}$
<b>8</b>	$\begin{array}{r} 10 \\ -8 \\ \hline 2 \end{array}$	$\begin{array}{r} 11 \\ -8 \\ \hline 3 \end{array}$	$\begin{array}{r} 12 \\ -8 \\ \hline 4 \end{array}$	$\begin{array}{r} 13 \\ -8 \\ \hline 5 \end{array}$	$\begin{array}{r} 14 \\ -8 \\ \hline 6 \end{array}$	$\begin{array}{r} 15 \\ -8 \\ \hline 7 \end{array}$	$\begin{array}{r} 16 \\ -8 \\ \hline 8 \end{array}$	$\begin{array}{r} 17 \\ -8 \\ \hline 9 \end{array}$
<b>9</b>	$\begin{array}{r} 11 \\ -9 \\ \hline 2 \end{array}$	$\begin{array}{r} 12 \\ -9 \\ \hline 3 \end{array}$	$\begin{array}{r} 13 \\ -9 \\ \hline 4 \end{array}$	$\begin{array}{r} 14 \\ -9 \\ \hline 5 \end{array}$	$\begin{array}{r} 15 \\ -9 \\ \hline 6 \end{array}$	$\begin{array}{r} 16 \\ -9 \\ \hline 7 \end{array}$	$\begin{array}{r} 17 \\ -9 \\ \hline 8 \end{array}$	$\begin{array}{r} 18 \\ -9 \\ \hline 9 \end{array}$
<b>10</b>	$\begin{array}{r} 12 \\ -10 \\ \hline 2 \end{array}$	$\begin{array}{r} 13 \\ -10 \\ \hline 3 \end{array}$	$\begin{array}{r} 14 \\ -10 \\ \hline 4 \end{array}$	$\begin{array}{r} 15 \\ -10 \\ \hline 5 \end{array}$	$\begin{array}{r} 16 \\ -10 \\ \hline 6 \end{array}$	$\begin{array}{r} 17 \\ -10 \\ \hline 7 \end{array}$	$\begin{array}{r} 18 \\ -10 \\ \hline 8 \end{array}$	$\begin{array}{r} 19 \\ -10 \\ \hline 9 \end{array}$

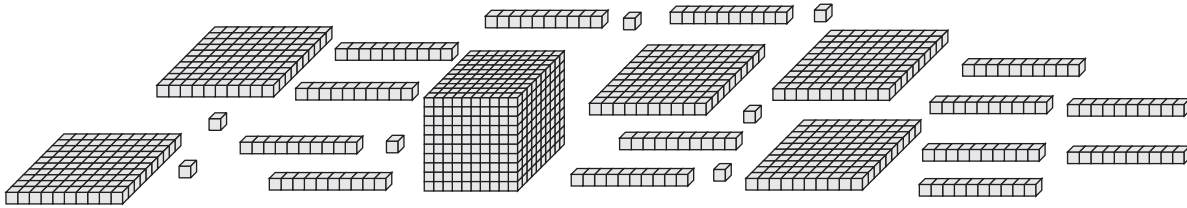
# Base-Ten Recording Sheets 1

 1000s	 100s	 10s	 1s	Number Sentence

 1000s	 100s	 10s	 1s	Number Sentence

# How Many Chocos?

Maya and Nikia were packaging Chocos at the TIMS Candy Company. They left for lunch. The picture shows the Chocos they left on their table.



Choose base-ten pieces to match the ones Maya and Nikia left on their table. Write the number of Chocos.

---

Show or tell how you found the number of Chocos. You may use base-ten shorthand, a Base-Ten Recording Sheet, number sentences, or words to explain your thinking.

**How Many Chocos?  
Feedback Box**

	Expectation	Check In	Comments
Represent numbers (to the thousands) using base-ten pieces, words, and symbols.	<b>E1</b>		
Compose and decompose numbers using ones, tens, hundreds, and thousands.	<b>E2</b>		
Show different partitions of a number using base-ten pieces and number sentences.	<b>E3</b>		
Recognize that different partitions of a number have the same total (eg., $100 + 20 + 3 = 100 + 10 + 13$ ).	<b>E4</b>		
Read and write large numbers (to the thousands).	<b>E5</b>		

Yes ...

Yes, but ...

No, but ...

No...

	Yes ...	Yes, but ...	No, but ...	No...
<b>MPE2. Find a strategy.</b> I choose good tools and an efficient strategy for solving the problem.				
<b>MPE5. Show my work.</b> I show or tell how I arrived at my answer so someone else can understand my thinking.				
<b>MPE6. Use labels.</b> I use labels to show what numbers mean.				

# Student A's Work

base ten shorthand

$$\begin{array}{|c|c|c|c|c|} \hline \square & \square & 1 & \cdot & \\ \hline 1 & 5 & 14 & 7 & 1,647 \\ \hline \end{array}$$

← answer

number sentences

$$1,000 + 500 + 140 + 7 = 1,647$$

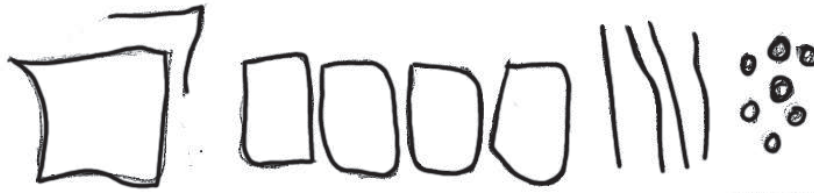
← answer

	Yes ...	Yes, but ...	No, but ...	No ...
<b>MPE2. Find a strategy.</b> I choose good tools and an efficient strategy for solving the problem.				
<b>MPE5. Show my work.</b> I show or tell how I arrived at my answer so someone else can understand my thinking.				
<b>MPE6. Use labels.</b> I use labels to show what numbers mean.				

# Student B's Work

1447

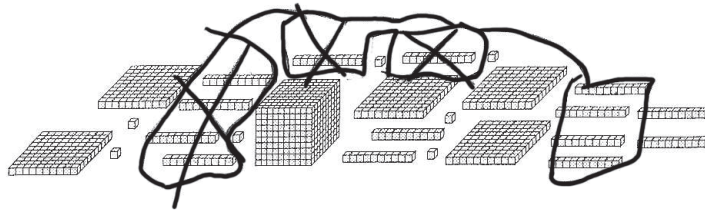
I started with a pack then a flat 4 skinnies and 7 bits.



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	Yes ...	Yes, but ...	No, but ...	No ...
<b>MPE2. Find a strategy.</b> I choose good tools and an efficient strategy for solving the problem.				
<b>MPE5. Show my work.</b> I show or tell how I arrived at my answer so someone else can understand my thinking.				
<b>MPE6. Use labels.</b> I use labels to show what numbers mean.				

# Student C's Work



Choose base-ten pieces to match the ones Maya and Nikia left on their table. Write the number of Chocos.

1647 chocos.

Show or tell how you found the number of Chocos. You may use base-ten shorthand, number sentences, or words to explain your thinking.



I got to use base ten shorthand it help alot for trading There were ten skinnys so I trade a flat and there were 4 of them left and there was one pack 6 flats 4 skinnys 7 bits

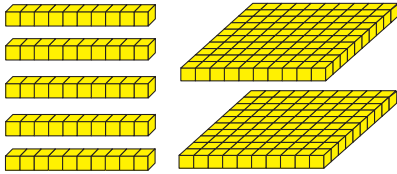
$$1000 + 600 + 40 + 7 = 1647$$

	Yes ...	Yes, but ...	No, but ...	No ...
<b>MPE2. Find a strategy.</b> I choose good tools and an efficient strategy for solving the problem.				
<b>MPE5. Show my work.</b> I show or tell how I arrived at my answer so someone else can understand my thinking.				
<b>MPE6. Use labels.</b> I use labels to show what numbers mean.				



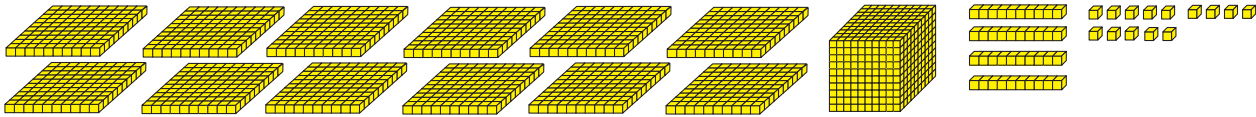
# Place Value

1. How many Chocos are shown with 5 skinnies and 2 flats? Write a number sentence to show the total.



Number sentence: \_\_\_\_\_

2. How many Chocos are shown with 12 flats, 1 pack, 4 skinnies, and 14 bits?



Show the number in base-ten shorthand using the Fewest Pieces Rule. Write a number sentence to match.

Number sentence: \_\_\_\_\_

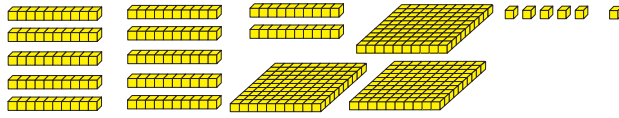
3. A. Show 1589 in base-ten shorthand.

B. Show 1601 in base-ten shorthand.

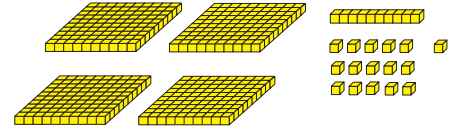
C. Complete the number sentence  $1589 \bigcirc 1601$  using  $<$ ,  $>$ , or  $=$ .

D. Show or tell how you know your sentence is correct.

4. Maruta packaged the Chocos shown below.

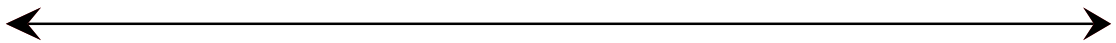


Tom packaged the Chocos shown below.



Did Maruta and Tom package the same number of Chocos? Show or tell how you know.

5. Show how a base-ten hopper can start at 37 and move forward 26. Where does it land?



**Place Value  
Feedback Box**

	Expectation	Check In	Comments
Compose and decompose numbers using ones, tens, hundreds, and thousands. [Q# 1–2, 3A, 3B, and 4]	E2		
Show different partitions of a number using base-ten pieces, number lines, and number sentences. [Q# 1–3A, 3B and 5]	E3		
Recognize that different partitions of a number have the same total (e.g., $100 + 20 + 3 = 100 + 10 + 13$ ). [Q# 4]	E4		
Read and write large numbers (to the thousands). [Q# 1–3A, 3B]	E5		
Compare large numbers (to the thousands). [Q# 3C, 3D, and 4]	E6		

Name \_\_\_\_\_

Date \_\_\_\_\_

# Number Sense with Dollars and Cents

## Check-In: Question 12 Feedback Box

Student to Student	Yes ...	Yes, but ...	No, but ...	No ...
<b>MPE2. Find a strategy.</b> I choose good tools and an efficient strategy for solving the problem.				
<b>MPE5. Show my work.</b> I show or tell how I arrived at my answer so someone else can understand my thinking.				
<b>MPE6. Use labels.</b> I use labels to show what numbers mean.				

Teacher to Student	Yes ...	Yes, but ...	No, but ...	No ...
<b>MPE2. Find a strategy.</b> I choose good tools and an efficient strategy for solving the problem.				
<b>MPE5. Show my work.</b> I show or tell how I arrived at my answer so someone else can understand my thinking.				
<b>MPE6. Use labels.</b> I use labels to show what numbers mean.				