Lesson 1
Place Value Through Thousands

Homework Helper

There are 1,576 steps to the top of the Empire State Building. Look at the model. Write the number in standard form, expanded form, and word form.

1 thousand

5 hundreds

7 tens

6 ones

**Standard form:** 1,576

**Expanded form:** 1,000 + 500 + 70 + 6

**Word form:** one thousand, five hundred seventy-six

Write the place and the value of the highlighted digit in 1,576.
A place-value chart helps to identify the place and value of a digit.

<table>
<thead>
<tr>
<th>thousands</th>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>7</td>
<td>6</td>
</tr>
</tbody>
</table>

The circled digit, 5, is in the hundreds place. Its value is 500.

Practice

Write each number in expanded form and word form.

1. 2,368
   2,000 + _______ + 60 + _______

   two ______________ , three ______________ sixty-eight

2. 6,204
   _______ + _______ + _______

   ______ thousand, ______ hundred four
Write the highlighted digit’s place and value.

3. 567 ________
   ________

4. 6,327 ________
   ________

5. 9,325 ________
   ________

6. 8,281 ________
   ________

Write each number in standard form.

7. 5,000 + 500 + 3 ________

8. 2,000 + 300 + 20 + 9 ________

9. 4,000 + 600 + 8 ________

10. 9,000 + 300 + 70 + 2 ________

Problem Solving

11. Use Number Sense Kyle is in seat number 1,024. Sierra’s seat number has the same number of thousands and tens as Kyle’s seat number, but 2 more hundreds and 3 fewer ones than Kyle’s seat number. What is Sierra’s seat number?

Vocabulary Check

Draw a line to connect each vocabulary word(s) to its definition.

12. word form • the value given to a digit by its place in a number

13. digit • the form of a number that uses written words

14. expanded form • the form of a number that shows the sum of the value of each digit

15. standard form • a symbol used to write a number

16. place value • the form of writing a number that shows only its digits

Test Practice

17. Which represents the number two thousand, eighty?

A 280  C 2,080
B 2,008  D 2,800

Need more practice? Download Extra Practice at connectED.mcgraw-hill.com
The John Hancock Center, in Chicago, is 1,127 feet in height. The Aon Center is 1,136 feet in height. Which building is taller?

A place-value chart can help to compare numbers.

So, 1,127 is less than 1,136.

1,127 < 1,136

The Aon Center is taller.

Use these symbols to compare. < means is less than, > means is greater than, = means is equal to.

Practice

Which number is less? Complete the statement.

1.  
   
   
   
2.  
   
   
   

   ______ < ______
   ______ < ______
Compare. Use >, <, or =.

3. 751 〇 715 4. 435 〇 543 5. 808 〇 880

6. 3,332 〇 3,332 7. 6,673 〇 6,376 8. 9,918 〇 9,819

Circle the number that is greater. Then complete the statement.

9. 3,322 〇 3,332 10. 1,877 〇 1,788 11. 2,727 〇 2,772

_____ > _____  _____ > _____  _____ > _____

Circle the number that is less. Then complete the statement.

12. 5,642 〇 5,426 13. 4,017 〇 4,071 14. 6,310 〇 6,231

_____ < _____  _____ < _____  _____ < _____

Problem Solving

15. **Practice** Use Symbols Last year there were 191 sunny days and 174 cloudy days. Were there more sunny or cloudy days last year? Compare using <, >, or =.

Test Practice

16. Which number is greater than 3,491?

A 3,419  B 3,490  C 3,491  D 3,499
Lesson 3
Order Numbers

Homework Helper

The table shows the number of each type of car sold. Order the cars sold from least to greatest.

<table>
<thead>
<tr>
<th>Type of Car</th>
<th>Cars Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sports Utility</td>
<td>1,309</td>
</tr>
<tr>
<td>Sedan</td>
<td>1,803</td>
</tr>
<tr>
<td>Compact</td>
<td>1,117</td>
</tr>
</tbody>
</table>

Use a place-value chart.

Line up the numbers from the right.

Begin to compare from the left.

Number lines are another way to order numbers.

1,117 < 1,309 < 1,803

The order from least to greatest is compact, sports utility, and sedan.

Practice

Order the numbers from least to greatest.

1. 210; 182; 153
2. 1,692; 1,687; 1,685

3. 9,544; 9,455; 9,564
4. 653; 535; 335
Order the numbers from greatest to least.

5. Electronics for Sale

6. Miles Traveled

Problem Solving

7. **Practice** Make Sense of Problems

The Jacksons, Chens, and Simms each went on vacation. The Jacksons drove 835 miles. The Simms drove 947 miles and the Chens drove 100 miles further than the Jacksons. Which family drove the furthest on vacation?

8. The addresses on Plum Street are out of order. Place them in order from least to the greatest.

   7867, 8112, 7831

Test Practice

9. Which set of numbers is correctly ordered from least to greatest?

   A  7,659; 7,668; 8,985; 9,887
   B  9,887; 8,985; 7,668; 7,659
   C  8,985; 9,887; 7,668; 7,659
   D  9,887; 8,985; 7,659; 7,668
Homework Helper

Chase read an article about a football player who carried the ball for 437 yards. Round this number to the nearest ten.

Use a place-value chart.

1. Circle the digit to be rounded.
   
   \[
   \begin{array}{ccc}
   \text{hundreds} & \text{tens} & \text{ones} \\
   \hline
   4 & 3 & 7 \\
   \end{array}
   \]

2. Look at the digit to its right.

3. If the digit is 5 or greater, add 1 to the circled digit. If it is 4 or less, do not change it.
   
   \[
   \begin{array}{ccc}
   \text{hundreds} & \text{tens} & \text{ones} \\
   \hline
   4 & 4 & 0 \\
   \end{array}
   \]

4. Replace all the digits after the circled digit with zeros.

So, the football player carried the ball for about 440 yards.

Practice

Round to the nearest ten.

1. 392
2. 126

Use the number line to round to the nearest ten.

\[
\begin{align*}
750 & \quad 751 & \quad 752 & \quad 753 & \quad 754 & \quad 755 & \quad 756 & \quad 757 & \quad 758 & \quad 759 & \quad 760 \\
\end{align*}
\]

3. 753
4. 758
5. 756
Use the number line to round to the nearest ten.

6. 302  
7. 304  
8. 305  

Round to the nearest ten.

9. 429  
10. 191 
11. 198 

Problem Solving

12. Mathematical Practice 2 Use Number Sense Garret’s dog weighs 127 pounds. About how much does his dog weigh to the nearest ten pounds?

Vocabulary Check

For each sentence, write one of the following on the line.
round nearest ten

13. To ________________ a number, you change its value to a number that is easier to work with.

14. Rounded to the ________________, 167 becomes 170.

Test Practice

15. Faith has added 143 songs to her music library on her computer. About how many songs is that? Round to the nearest ten.

140 141 142 143 144 145 146 147 148 149 150

A 130 songs  C 145 songs
B 140 songs  D 150 songs
Homework Helper

A roller coaster in Ohio travels a track 5,427 feet long. About how many feet is that? Round to the nearest hundred.

You can use a place-value chart.

1. Circle the digit to be rounded.

2. Look at the digit to its right.

3. If the digit is 5 or greater, add 1 to the circled digit. If it is less than 5, do not change it.

4. Replace all the digits after the circled digit with zeros.

So, the roller coaster track is about 5,400 feet long.

Practice
Round to the nearest hundred.

1. 688

2. 4,248

3. 316

4. 2,781
Use the number line to round to the nearest hundred.

\[ \begin{array}{cccccccccccc}
1,800 & 1,810 & 1,820 & 1,830 & 1,840 & 1,850 & 1,860 & 1,870 & 1,880 & 1,890 & 1,900 \\
\end{array} \]

5. 1,877  
6. 1,849  
7. 1,829  

Round to the nearest ten and nearest hundred.

8. 

<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>

ten _____
hundred _____

9. 

<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

ten _____
hundred _____

Problem Solving

10. PRACTICE Reason The table shows how many patients two doctors saw last year. To the nearest hundred, which doctor saw about 2,400 patients? Explain.

<table>
<thead>
<tr>
<th>Doctor</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Walters</td>
<td>2,493</td>
</tr>
<tr>
<td>Dr. Santos</td>
<td>3,205</td>
</tr>
<tr>
<td>Dr. Cooper</td>
<td>2,353</td>
</tr>
</tbody>
</table>

11. A group of hikers plan to climb Mt. Carmy. To the nearest hundred, about how many feet will they climb to the peak?

Test Practice

12. Mr. Miles bought a telescope that cost $3,556. To the nearest hundred, how much did the telescope cost?

A. $3,500  
B. $3,560  
C. $3,600  
D. $4,000
Homework Helper

There were 418 tickets sold for Conrad’s piano recital. About how many tickets were sold? Round to the nearest hundred.

1. Understand
   What facts do you know?
   There were 418 tickets sold.

   What do you need to find?
   the number of tickets sold to the nearest hundred.

2. Plan
   Use a number line.

3. Solve
   \[400 \quad 410 \quad 420 \quad 430 \quad 440 \quad 450 \quad 460 \quad 470 \quad 480 \quad 490 \quad 500\]

   418 is closer to 400 than to 500. About 400 tickets were sold.

4. Check
   Check using a place-value chart.
   The answer is correct.

<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>

Problem Solving

1. Victoria buys two pairs of sunglasses for $8 each. About how much did she pay for both pairs of glasses? Round to the nearest ten. Solve the problem using the four-step plan.
Solve each problem using the four-step plan.

2. Ridgeway Elementary School collected eight thousand, five hundred thirty-one cans of food. Park Elementary School collected eight thousand, six hundred forty-two cans. Which school collected more cans of food? Write the greater number of cans in expanded form.

3. **PRACTICE** Make a Plan There are 398 students at Rebecca’s school and 462 students at Haley’s school. There are 10 more students at Ronnie’s school than there are at Rebecca’s school. Order the number of students at each school from least to greatest.

4. **PRACTICE** Justify Conclusions The table shows the points each player scored in a video game. Who scored more points? Circle the player’s name.

<table>
<thead>
<tr>
<th>Player</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Josh</td>
<td>2,365</td>
</tr>
<tr>
<td>Jake</td>
<td>2,475</td>
</tr>
</tbody>
</table>

In which place are the digits that helped you solve this problem?

5. The distance from Los Angeles, California to New York, New York is 2,782 miles. What is the distance between the two cities rounded to the nearest hundred miles?