



**Math Lesson 7**  
**Using Very Small and Very Large Numbers (Grade 5)**

**Instruction 7-1**  
**Estimate, Round off, and Manipulate Very Small and Very Large Numbers**

### Rounding Off Numbers

To round off a number, use place-value to round decimals and whole numbers.

To round to the nearest number use place-value. Look at the digit in the place to the right of where you want to round. Determine whether the digit is greater than 5 or less than 5. Round appropriately.

**Example 1** Round 234.423 to the nearest tenth.

Look at the digit in the hundredth place.	234.4 <b>2</b> 3
Compare the digit to 5. If it is less than 5, round down If it is more than 5, round up	$2 < 5$ , round down
<b>Answer:</b>	<b>234.4</b>

**Example 2** Round 4,278.43 to the nearest hundred.

Look at the digit in the hundred place.	4, <b>2</b> 78.43
Compare the digit to 5. If it is less than 5, round down If it is more than 5, round up	$7 < 5$ , round up
<b>Answer:</b>	<b>4,300</b>

### Estimating

Estimation is a process for determining an answer that is close to the actual total. Estimation can be used in addition, subtraction, division, and multiplication. Estimation makes use of rounded off numbers. The easiest way to find the total of an answer, use the values of the “front” digits and then adjust the estimate by grouping the remaining digits, this is also called front-end estimation.



**Math Lesson 6**  
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**Example 1** Estimate the sum of  $347 + 874$ .

Use front-end estimation.	<b>347</b> <b>874</b>
Compare the digit to 5. If it is less than 5, round down If it is more than 5, round up	$4 < 5$ , round down $7 > 5$ , round up
Find the sum of the estimated numbers.	<b>300 + 900 = 1,200</b>

**Example 2** Estimate the difference of  $8,329 - 3,782$  to the nearest hundred place.

Round off the numbers to the nearest hundred place.	<b>8,329</b> <b>3,782</b>
Compare the digit to 5. If it is less than 5, round down If it is more than 5, round up	$2 < 5$ , round down $8 > 5$ , round up
Find the difference of the estimated numbers.	<b>8,300 - 3,800 = 4,500</b>

**Example 3** Estimate the product of  $32 \times 46$

Round off the two numbers.	<b>32</b> <b>46</b>
Compare the digit to 5. If it is less than 5, round down If it is more than 5, round up	$2 < 5$ , round down $6 > 5$ , round up
Find the product of the estimated numbers.	<b>30 x 50 = 1,500</b>



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**Example 4** Estimate the quotient of  $654 \div 13$

Round the numbers.	<b>6</b> 54 <b>1</b> 3
Compare the digit to 5. If it is less than 5, round down If it is more than 5, round up	5 = 5, round up 3 < 5, round down
Find the quotient of the estimated numbers.	<b>7</b> 00 $\div$ <b>1</b> 0 = <b>7</b> 0