Eureka Math™

Grade 4 Module 1

Student File_A

Student Workbook

This file contains:
- G4-M1 Problem Sets
- G4-M1 Homework
- G4-M1 Templates¹

¹Note that not all lessons in this module include templates.
Lesson 1 Problem Set

Name _______________________________ Date __________________

1. Label the place value charts. Fill in the blanks to make the following equations true. Draw disks in the place value chart to show how you got your answer, using arrows to show any bundling.

   a. $10 \times 3 \text{ ones} = \underline{\phantom{0}} \text{ ones} = \underline{\phantom{0}}$

   b. $10 \times 2 \text{ tens} = \underline{\phantom{0}} \text{ tens} = \underline{\phantom{0}}$

   c. $4 \text{ hundreds} \times 10 = \underline{\phantom{0}} \text{ hundreds} = \underline{\phantom{0}}$
2. Complete the following statements using your knowledge of place value:
   
   a. 10 times as many as 1 ten is _______ tens.
   
   b. 10 times as many as _______ tens is 30 tens or _______ hundreds.

   c. _____________________________ as 9 hundreds is 9 thousands.

   d. _________ thousands is the same as 20 hundreds.

   Use pictures, numbers, or words to explain how you got your answer for Part (d).

3. Matthew has 30 stamps in his collection. Matthew’s father has 10 times as many stamps as Matthew. How many stamps does Matthew’s father have? Use numbers or words to explain how you got your answer.
4. Jane saved $800. Her sister has 10 times as much money. How much money does Jane’s sister have? Use numbers or words to explain how you got your answer.

5. Fill in the blanks to make the statements true.
   
   a. 2 times as much as 4 is _______.
   
   b. 10 times as much as 4 is _______.
   
   c. 500 is 10 times as much as _______.
   
   d. 6,000 is ________________________________ as 600.

6. Sarah is 9 years old. Sarah’s grandfather is 90 years old. Sarah’s grandfather is how many times as old as Sarah?

   Sarah’s grandfather is ______ times as old as Sarah.
Name _______________________________ Date __________________

1. Label the place value charts. Fill in the blanks to make the following equations true. Draw disks in the place value chart to show how you got your answer, using arrows to show any regrouping.

a. \(10 \times 4 \text{ ones} = \underline{\text{______ ones}} = \underline{\text{________}}\)

b. \(10 \times 2 \text{ tens} = \underline{\text{______ tens}} = \underline{\text{________}}\)

c. \(5 \text{ hundreds} \times 10 = \underline{\text{______ hundreds}} = \underline{\text{________}}\)
2. Complete the following statements using your knowledge of place value:

   a. 10 times as many as 1 hundred is ______ hundreds or ______ thousand.

   b. 10 times as many as ______ hundred is 60 hundreds or ______ thousands.

   c. _____________________________ as 8 hundreds is 8 thousands.

   d. _______ hundreds is the same as 4 thousands.

   Use pictures, numbers, or words to explain how you got your answer for Part (d).

3. Katrina has 60 GB of storage on her tablet. Katrina’s father has 10 times as much storage on his computer. How much storage does Katrina’s father have? Use numbers or words to explain how you got your answer.
4. Katrina saved $200 to purchase her tablet. Her father spent 10 times as much money to buy his new computer. How much did her father’s computer cost? Use numbers or words to explain how you got your answer.

5. Fill in the blanks to make the statements true.
   
   a. 4 times as much as 3 is ______.
   
   b. 10 times as much as 9 is ______.
   
   c. 700 is 10 times as much as ______.
   
   d. 8,000 is ________________________________ as 800.

6. Tomas’s grandfather is 100 years old. Tomas’s grandfather is 10 times as old as Tomas. How old is Tomas?
Lesson 1: Interpret a multiplication equation as a comparison.

unlabeled thousands place value chart
Lesson 2 Problem Set

Name ______________________________________________________________________ Date ________________

1. As you did during the lesson, label and represent the product or quotient by drawing disks on the place value chart.
   a. 10 × 2 thousands = _______ thousands = ______________________________

   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |

   b. 10 × 3 ten thousands = _______ ten thousands = ______________________________

   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |

   c. 4 thousands ÷ 10 = _______ hundreds ÷ 10 = ______________________________

   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
   |   |   |   |   |
2. Solve for each expression by writing the solution in unit form and in standard form.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Unit form</th>
<th>Standard Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 × 6 tens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 hundreds × 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 thousands ÷ 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 ten thousands ÷ 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 × 4 thousands</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Solve for each expression by writing the solution in unit form and in standard form.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Unit form</th>
<th>Standard Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4 tens 3 ones) × 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2 hundreds 3 tens) × 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7 thousands 8 hundreds) × 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6 thousands 4 tens) ÷ 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4 ten thousands 3 tens) ÷ 10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Explain how you solved 10 × 4 thousands. Use a place value chart to support your explanation.
5. Explain how you solved \((4 \text{ ten thousands } 3 \text{ tens}) \div 10\). Use a place value chart to support your explanation.

6. Jacob saved 2 thousand dollar bills, 4 hundred dollar bills, and 6 ten dollar bills to buy a car. The car costs 10 times as much as he has saved. How much does the car cost?

7. Last year the apple orchard experienced a drought and did not produce many apples. But this year, the apple orchard produced 45 thousand Granny Smith apples and 9 hundred Red Delicious apples, which is 10 times as many apples as last year. How many apples did the orchard produce last year?
8. Planet Ruba has a population of 1 million aliens. Planet Zamba has 1 hundred thousand aliens.
   a. How many more aliens does Planet Ruba have than Planet Zamba?

   b. Write a sentence to compare the populations for each planet using the words 10 times as many.
Name ______________________________ Date _____________________

1. As you did during the lesson, label and represent the product or quotient by drawing disks on the place value chart.
   a. \(10 \times 4 \text{ thousands} = \underline{_______} \text{ thousands} = \underline{_________________________}\)

   |   |   |   |   |
   |   |   |   |   |

   b. \(4 \text{ thousands} \div 10 = \underline{_______} \text{ hundreds} \div 10 = \underline{_________________________}\)

   |   |   |   |   |
   |   |   |   |   |

2. Solve for each expression by writing the solution in unit form and in standard form.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Unit Form</th>
<th>Standard Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>(10 \times 3 \text{ tens})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5 \text{ hundreds} \times 10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(9 \text{ ten thousands} \div 10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(10 \times 7 \text{ thousands})</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 2: Recognize a digit represents 10 times the value of what it represents in the place to its right.

Lesson 2 Homework

3. Solve for each expression by writing the solution in unit form and in standard form.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Unit Form</th>
<th>Standard Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2 tens 1 one) × 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5 hundreds 5 tens) × 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2 thousands 7 tens) ÷ 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4 ten thousands 8 hundreds) ÷ 10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. a. Emily collected $950 selling Girl Scout cookies all day Saturday. Emily’s troop collected 10 times as much as she did. How much money did Emily’s troop raise?

b. On Saturday, Emily made 10 times as much as on Monday. How much money did Emily collect on Monday?
Lesson 2: Recognize a digit represents 10 times the value of what it represents in the place to its right.
Lesson 3 Problem Set

Name ___________________________  Date __________________

1. Rewrite the following numbers including commas where appropriate:
   a. 1234 _________________  b. 12345 _________________  c. 123456 _________________
   d. 1234567 _________________  e. 12345678901 _________________

2. Solve each expression. Record your answer in standard form.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Standard Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 tens + 5 tens</td>
<td></td>
</tr>
<tr>
<td>3 hundreds + 7 hundreds</td>
<td></td>
</tr>
<tr>
<td>400 thousands + 600 thousands</td>
<td></td>
</tr>
<tr>
<td>8 thousands + 4 thousands</td>
<td></td>
</tr>
</tbody>
</table>

3. Represent each addend with place value disks in the place value chart. Show the composition of larger units from 10 smaller units. Write the sum in standard form.
   a. 4 thousands + 11 hundreds = ________________________________
b. 24 ten thousands + 11 thousands = _________________________________

<table>
<thead>
<tr>
<th>millions</th>
<th>hundred thousands</th>
<th>ten thousands</th>
<th>thousands</th>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Use digits or disks on the place value chart to represent the following equations. Write the product in standard form.

a. 10 × 3 thousands = _________________________________

   How many thousands are in the answer? ________________

<table>
<thead>
<tr>
<th>millions</th>
<th>hundred thousands</th>
<th>ten thousands</th>
<th>thousands</th>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. (3 ten thousands 2 thousands) × 10 = _________________________________

   How many thousands are in the answer? ________________

<table>
<thead>
<tr>
<th>millions</th>
<th>hundred thousands</th>
<th>ten thousands</th>
<th>thousands</th>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 3 Problem Set

Lesson 3: Name numbers within 1 million by building understanding of the place value chart and placement of commas for naming base thousand units.

5. Lee and Gary visited South Korea. They exchanged their dollars for South Korean bills. Lee received 15 ten thousand South Korean bills. Gary received 150 thousand bills. Use disks or numbers on a place value chart to compare Lee’s and Gary’s money.
Lesson 3 Homework

Name ____________________________ Date ______________

1. Rewrite the following numbers including commas where appropriate:
   a. 4321 ________________________ b. 54321 ________________________
   c. 224466 ________________________ d. 2224466 ________________________
   e. 10010011001 ________________________

2. Solve each expression. Record your answer in standard form.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Standard Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 tens + 6 tens</td>
<td></td>
</tr>
<tr>
<td>8 hundreds + 2 hundreds</td>
<td></td>
</tr>
<tr>
<td>5 thousands + 7 thousands</td>
<td></td>
</tr>
</tbody>
</table>

3. Represent each addend with place value disks in the place value chart. Show the composition of larger units from 10 smaller units. Write the sum in standard form.

   a. 2 thousands + 12 hundreds = _________________________________

<table>
<thead>
<tr>
<th>millions</th>
<th>hundred thousands</th>
<th>ten thousands</th>
<th>thousands</th>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
</table>
b. 14 ten thousands + 12 thousands = ________________________________

<table>
<thead>
<tr>
<th>millions</th>
<th>hundred thousands</th>
<th>ten thousands</th>
<th>thousands</th>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
</table>

4. Use digits or disks on the place value chart to represent the following equations. Write the product in standard form.

a. 10 × 5 thousands = ________________________________

   How many thousands are in the answer? ________________

<table>
<thead>
<tr>
<th>millions</th>
<th>hundred thousands</th>
<th>ten thousands</th>
<th>thousands</th>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
</table>

b. (4 ten thousands 4 thousands) × 10 = ________________________________

   How many thousands are in the answer? ________________

<table>
<thead>
<tr>
<th>millions</th>
<th>hundred thousands</th>
<th>ten thousands</th>
<th>thousands</th>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
</table>
c. \((27 \text{ thousands } 3 \text{ hundreds } 5 \text{ ones}) \times 10 = \) __________________________

How many thousands are in your answer? _________________________

<table>
<thead>
<tr>
<th>millions</th>
<th>hundred thousands</th>
<th>ten thousands</th>
<th>thousands</th>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
</table>

5. A large grocery store received an order of 2 thousand apples. A neighboring school received an order of 20 boxes of apples with 100 apples in each. Use disks or disks on a place value chart to compare the number of apples received by the school and the number of apples received by the grocery store.
1. a. On the place value chart below, label the units, and represent the number 90,523.

   |   |   |   |   |   |

   b. Write the number in word form.

   c. Write the number in expanded form.

2. a. On the place value chart below, label the units, and represent the number 905,203.

   |   |   |   |   |   |

   b. Write the number in word form.

   c. Write the number in expanded form.
3. Complete the following chart:

<table>
<thead>
<tr>
<th>Standard Form</th>
<th>Word Form</th>
<th>Expanded Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>two thousand, four hundred eighty</td>
<td></td>
<td>20,000 + 400 + 80 + 2</td>
</tr>
<tr>
<td>sixty-four thousand, one hundred six</td>
<td></td>
<td></td>
</tr>
<tr>
<td>604,016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>960,060</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Black rhinos are endangered, with only 4,400 left in the world. Timothy read that number as “four thousand, four hundred.” His father read the number as “44 hundred.” Who read the number correctly? Use pictures, numbers, or words to explain your answer.
Lesson 4 Homework

Name __________________________________________ Date __________________

1. a. On the place value chart below, label the units, and represent the number 50,679.

   [Place value chart]

   b. Write the number in word form.

   c. Write the number in expanded form.

2. a. On the place value chart below, label the units, and represent the number 506,709.

   [Place value chart]

   b. Write the number in word form.

   c. Write the number in expanded form.
3. Complete the following chart:

<table>
<thead>
<tr>
<th>Standard Form</th>
<th>Word Form</th>
<th>Expanded Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>five thousand, three hundred seventy</td>
<td>five thousand, three hundred seventy</td>
<td>50,000 + 300 + 70 + 2</td>
</tr>
<tr>
<td>thirty-nine thousand, seven hundred one</td>
<td>thirty-nine thousand, seven hundred one</td>
<td></td>
</tr>
<tr>
<td>309,017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>770,070</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Use pictures, numbers, and words to explain another way to say sixty-five hundred.
Name _______________________________ Date ________________

1. Label the units in the place value chart. Draw place value disks to represent each number in the place value chart. Use <, >, or = to compare the two numbers. Write the correct symbol in the circle.

   a. 600,015 □ 60,015

   b. 409,004 □ 440,002

2. Compare the two numbers by using the symbols <, >, and =. Write the correct symbol in the circle.

   a. 342,001 □ 94,981

   b. $500,000 + 80,000 + 9,000 + 100$ □ five hundred eight thousand, nine hundred one
Lesson 5 Problem Set

c. 9 hundred thousands 8 thousands 9 hundreds 3 tens  
    \[ 908,930 \]

d. 9 hundreds 5 ten thousands 9 ones  
    \[ 6 \text{ ten thousands 5 hundreds 9 ones} \]

3. Use the information in the chart below to list the height in feet of each mountain from least to greatest. Then, name the mountain that has the lowest elevation in feet.

<table>
<thead>
<tr>
<th>Name of Mountain</th>
<th>Elevation in Feet (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen Mountain</td>
<td>4,340 ft</td>
</tr>
<tr>
<td>Mount Marcy</td>
<td>5,344 ft</td>
</tr>
<tr>
<td>Mount Haystack</td>
<td>4,960 ft</td>
</tr>
<tr>
<td>Slide Mountain</td>
<td>4,240 ft</td>
</tr>
</tbody>
</table>

©2015 Great Minds. eureka-math.org
4. Arrange these numbers from least to greatest: 8,002, 2,080, 820, 2,008, 8,200

5. Arrange these numbers from greatest to least: 728,000, 708,200, 720,800, 87,300

6. One astronomical unit, or 1 AU, is the approximate distance from Earth to the sun. The following are the approximate distances from Earth to nearby stars given in AUs:

   - Alpha Centauri is 275,725 AUs from Earth.
   - Proxima Centauri is 268,269 AUs from Earth.
   - Epsilon Eridani is 665,282 AUs from Earth.
   - Barnard’s Star is 377,098 AUs from Earth.
   - Sirius is 542,774 AUs from Earth.

   List the names of the stars and their distances in AUs in order from closest to farthest from Earth.
1. Label the units in the place value chart. Draw place value disks to represent each number in the place value chart. Use <, >, or = to compare the two numbers. Write the correct symbol in the circle.

   a. 909,013   90,013

   b. 210,005   220,005
2. Compare the two numbers by using the symbols <, >, and =. Write the correct symbol in the circle.
   
   a. 501,107 ☐ 89,171

   b. 300,000 + 50,000 + 1,000 + 800 ☐ six hundred five thousand, nine hundred eight

   c. 3 hundred thousands 3 thousands 8 hundreds 4 tens ☐ 303,840

   d. 5 hundreds 6 ten thousands 2 ones ☐ 3 ten thousands 5 hundreds 1 one

3. Use the information in the chart below to list the height, in feet, of each skyscraper from shortest to tallest. Then, name the tallest skyscraper.

<table>
<thead>
<tr>
<th>Name of Skyscraper</th>
<th>Height of Skyscraper (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willis Tower</td>
<td>1,450 ft</td>
</tr>
<tr>
<td>One World Trade Center</td>
<td>1,776 ft</td>
</tr>
<tr>
<td>Taipei 101</td>
<td>1,670 ft</td>
</tr>
<tr>
<td>Petronas Towers</td>
<td>1,483 ft</td>
</tr>
</tbody>
</table>
4. Arrange these numbers from least to greatest: 7,550 5,070 750 5,007 7,505

5. Arrange these numbers from greatest to least: 426,000 406,200 640,020 46,600

6. The areas of the 50 states can be measured in square miles.

California is 158,648 square miles. Nevada is 110,567 square miles. Arizona is 114,007 square miles. Texas is 266,874 square miles. Montana is 147,047 square miles, and Alaska is 587,878 square miles.

Arrange the states in order from least area to greatest area.
Lesson 5: Compare numbers based on meanings of the digits using $>$, $<$, or $=$ to record the comparison.
Lesson 6 Problem Set

Name ________________________________ Date __________________

1. Label the place value chart. Use place value disks to find the sum or difference. Write the answer in standard form on the line.
   a. 10,000 more than six hundred five thousand, four hundred seventy-two is _____________________.

   b. 100 thousand less than 400,000 + 80,000 + 1,000 + 30 + 6 is _____________________.

   c. 230,070 is _________________________________ than 130,070.

2. Lucy plays an online math game. She scored 100,000 more points on Level 2 than on Level 3. If she scored 349,867 points on Level 2, what was her score on Level 3? Use pictures, words, or numbers to explain your thinking.
3. Fill in the blank for each equation.
   a. $10,000 + 40,060 = \underline{__________}$
   b. $21,195 - 10,000 = \underline{__________}$
   c. $999,000 + 1,000 = \underline{__________}$
   d. $129,231 - 100,000 = \underline{__________}$
   e. $122,000 = 22,000 + \underline{__________}$
   f. $38,018 = 39,018 - \underline{__________}$

4. Fill in the empty boxes to complete the patterns.
   a. 
   
   | 150,010 | 170,010 | 190,010 |
   
   Explain in pictures, numbers, or words how you found your answers.

   b. 
   
   | 898,756 | 798,756 | \ | 498,756 |
   
   Explain in pictures, numbers, or words how you found your answers.
Lesson 6 Problem Set

**Lesson 6:** Find 1, 10, and 100 thousand more and less than a given number.

### c.

<table>
<thead>
<tr>
<th>744,369</th>
<th>743,369</th>
<th>741,369</th>
</tr>
</thead>
</table>

Explain in pictures, numbers, or words how you found your answers.

### d.

<table>
<thead>
<tr>
<th>118,910</th>
<th></th>
<th>88,910</th>
<th>78,910</th>
</tr>
</thead>
</table>

Explain in pictures, numbers, or words how you found your answers.
1. Label the place value chart. Use place value disks to find the sum or difference. Write the answer in standard form on the line.
   a. 100,000 less than five hundred sixty thousand, three hundred thirteen is ______________.
   b. Ten thousand more than 300,000 + 90,000 + 5,000 + 40 is ______________.
   c. 447,077 is ______________ than 347,077.

2. Fill in the blank for each equation:
   a. 100,000 + 76,960 = ______________
   b. 13,097 − 1,000 = ______________
   c. 849,000 − 10,000 = ______________
   d. 442,210 + 10,000 = ______________
   e. 172,090 = 171,090 + ______________
   f. 854,121 = 954,121 − ______________
3. Fill in the empty boxes to complete the patterns.

a. 

| 145,555 | 147,555 | 149,555 |

Explain in pictures, numbers, or words how you found your answers.

b. 

| 764,321 | 774,321 | 804,321 |

Explain in pictures, numbers, or words how you found your answers.

c. 

| 125,876 | 225,876 | 425,876 |  |

Explain in pictures, numbers, or words how you found your answers.
Lesson 6 Homework

4. In 2012, Charlie earned an annual salary of $54,098. At the beginning of 2013, Charlie’s annual salary was raised by $10,000. How much money will Charlie earn in 2013? Use pictures, words, or numbers to explain your thinking.

d. 

| 254,445 | 224,445 | 214,445 |

Explain in pictures, numbers, or words how you found your answers.
Lesson 7: Round multi-digit numbers to the thousands place using the vertical number line.

Name ________________________________ Date __________________

1. Round to the nearest thousand. Use the number line to model your thinking.

a. $6,700 \approx \underline{\phantom{0000}}$

b. $9,340 \approx \underline{\phantom{0000}}$

c. $16,401 \approx \underline{\phantom{0000}}$

d. $39,545 \approx \underline{\phantom{0000}}$

e. $399,499 \approx \underline{\phantom{0000}}$

f. $840,007 \approx \underline{\phantom{0000}}$
2. A pilot wanted to know about how many kilometers he flew on his last 3 flights. From NYC to London, he flew 5,572 km. Then, from London to Beijing, he flew 8,147 km. Finally, he flew 10,996 km from Beijing back to NYC. Round each number to the nearest thousand, and then find the sum of the rounded numbers to estimate about how many kilometers the pilot flew.

3. Mrs. Smith’s class is learning about healthy eating habits. The students learned that the average child should consume about 12,000 calories each week. Kerry consumed 12,748 calories last week. Tyler consumed 11,702 calories last week. Round to the nearest thousand to find who consumed closer to the recommended number of calories. Use pictures, numbers, or words to explain.

4. For the 2013-2014 school year, the cost of tuition at Cornell University was $43,000 when rounded to the nearest thousand. What is the greatest possible amount the tuition could be? What is the least possible amount the tuition could be?
Lesson 7: Round multi-digit numbers to the thousands place using the vertical number line.

Name ___________________________ Date _______________________

1. Round to the nearest thousand. Use the number line to model your thinking.
   
   a. $5,900 \approx \underline{6},000$
   
   b. $4,180 \approx \underline{4},000$

   c. $32,879 \approx \underline{33},000$
   
   d. $78,600 \approx \underline{79},000$

   e. $251,031 \approx \underline{251},000$
   
   f. $699,900 \approx \underline{700},000$
2. Steven put together 981 pieces of a puzzle. About how many pieces did he put together? Round to the nearest thousand. Use what you know about place value to explain your answer.

3. Louise’s family went on vacation to Disney World. Their vacation cost $5,990. Sophia’s family went on vacation to Niagara Falls. Their vacation cost $4,720. Both families budgeted about $5,000 for their vacation. Whose family stayed closer to the budget? Round to the nearest thousand. Use what you know about place value to explain your answer.

4. Marsha’s brother wanted help with the first question on his homework. The question asked the students to round 128,902 to the nearest thousand and then to explain the answer. Marsha’s brother thought that the answer was 128,000. Was his answer correct? How do you know? Use pictures, numbers, or words to explain.
Lesson 8 Problem Set

Name ________________________________ Date __________________

Complete each statement by rounding the number to the given place value. Use the number line to show your work.

1.  
   a. 53,000 rounded to the nearest ten thousand is _______________.

   ![Number line for 53,000]

   b. 42,708 rounded to the nearest ten thousand is _______________.

   ![Number line for 42,708]

   c. 406,823 rounded to the nearest ten thousand is _______________.

   ![Number line for 406,823]

2.  
   a. 240,000 rounded to the nearest hundred thousand is _______________.

   ![Number line for 240,000]

   b. 449,019 rounded to the nearest hundred thousand is _______________.

   ![Number line for 449,019]

   c. 964,103 rounded to the nearest hundred thousand is _______________.

   ![Number line for 964,103]
3. 975,462 songs were downloaded in one day. Round this number to the nearest hundred thousand to estimate how many songs were downloaded in one day. Use a number line to show your work.

4. This number was rounded to the nearest ten thousand. List the possible digits that could go in the thousands place to make this statement correct. Use a number line to show your work.

   \[13\_\{644\} = 130,000\]

5. Estimate the difference by rounding each number to the given place value.

   \[712,350 - 342,802\]

   a. Round to the nearest ten thousands.

   b. Round to the nearest hundred thousands.
Complete each statement by rounding the number to the given place value. Use the number line to show your work.

1. a. 67,000 rounded to the nearest ten thousand is _______________.

   ![Number line for 67,000]

   b. 51,988 rounded to the nearest ten thousand is _______________.

   ![Number line for 51,988]

   c. 105,159 rounded to the nearest ten thousand is _______________.

   ![Number line for 105,159]

2. a. 867,000 rounded to the nearest hundred thousand is _______________.

   ![Number line for 867,000]

   b. 767,074 rounded to the nearest hundred thousand is _______________.

   ![Number line for 767,074]

   c. 629,999 rounded to the nearest hundred thousand is _______________.

   ![Number line for 629,999]
3. 491,852 people went to the water park in the month of July. Round this number to the nearest hundred thousand to estimate how many people went to the park. Use a number line to show your work.

4. This number was rounded to the nearest hundred thousand. List the possible digits that could go in the ten thousands place to make this statement correct. Use a number line to show your work.

   \[ 1\_9,644 \approx 100,000 \]

5. Estimate the sum by rounding each number to the given place value.

   \[ 164,215 + 216,088 \]

   a. Round to the nearest ten thousand.

   b. Round to the nearest hundred thousand.
Lesson 9 Problem Set

Name _____________________________ Date ________________

1. Round to the nearest thousand.
   a. $5,300 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   b. $4,589 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   c. $42,099 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   d. $801,504 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   e. Explain how you found your answer for Part (d).

2. Round to the nearest ten thousand.
   a. $26,000 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   b. $34,920 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   c. $789,091 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   d. $706,286 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   e. Explain why two problems have the same answer. Write another number that has the same answer when rounded to the nearest ten thousand.

3. Round to the nearest hundred thousand.
   a. $840,000 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   b. $850,471 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   c. $761,004 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   d. $991,965 \approx \underline{\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad}$
   e. Explain why two problems have the same answer. Write another number that has the same answer when rounded to the nearest hundred thousand.
4. Solve the following problems using pictures, numbers, or words.
   a. The 2012 Super Bowl had an attendance of just 68,658 people. If the headline in the newspaper the next day read, “About 70,000 People Attend Super Bowl,” how did the newspaper round to estimate the total number of people in attendance?
   
   b. The 2011 Super Bowl had an attendance of 103,219 people. If the headline in the newspaper the next day read, “About 200,000 People Attend Super Bowl,” is the newspaper’s estimate reasonable? Use rounding to explain your answer.
   
   c. According to the problems above, about how many more people attended the Super Bowl in 2011 than in 2012? Round each number to the largest place value before giving the estimated answer.
Name ____________________________ Date __________________

1. Round to the nearest thousand.
   a. 6,842 ≈ _________________
   b. 2,722 ≈ _________________
   c. 16,051 ≈ _________________
   d. 706,421 ≈ _________________
   e. Explain how you found your answer for Part (d).

2. Round to the nearest ten thousand.
   a. 88,999 ≈ _________________
   b. 85,001 ≈ _________________
   c. 789,091 ≈ _________________
   d. 905,154 ≈ _________________
   e. Explain why two problems have the same answer. Write another number that has the same answer when rounded to the nearest ten thousand.

3. Round to the nearest hundred thousand.
   a. 89,659 ≈ _________________
   b. 751,447 ≈ _________________
   c. 617,889 ≈ _________________
   d. 817,245 ≈ _________________
   e. Explain why two problems have the same answer. Write another number that has the same answer when rounded to the nearest hundred thousand.
4. Solve the following problems using pictures, numbers, or words.

a. At President Obama’s inauguration in 2013, the newspaper headlines stated there were about 800,000 people in attendance. If the newspaper rounded to the nearest hundred thousand, what is the largest number and smallest number of people who could have been there?

b. At President Bush’s inauguration in 2005, the newspaper headlines stated there were about 400,000 people in attendance. If the newspaper rounded to the nearest ten thousand, what is the largest number and smallest number of people who could have been there?

c. At President Lincoln’s inauguration in 1861, the newspaper headlines stated there were about 30,000 people in attendance. If the newspaper rounded to the nearest thousand, what is the largest number and smallest number of people who could have been there?
Lesson 10 Problem Set

1. Round 543,982 to the nearest
   a. thousand: _____________________________.
   b. ten thousand: _____________________________.
   c. hundred thousand: _____________________________.

2. Complete each statement by rounding the number to the given place value.
   a. 2,841 rounded to the nearest hundred is _________________________.
   b. 32,851 rounded to the nearest hundred is _________________________.
   c. 132,891 rounded to the nearest hundred is _________________________.
   d. 6,299 rounded to the nearest thousand is _________________________.
   e. 36,599 rounded to the nearest thousand is _________________________.
   f. 100,699 rounded to the nearest thousand is _________________________.
   g. 40,984 rounded to the nearest ten thousand is _________________________.
   h. 54,984 rounded to the nearest ten thousand is _________________________.
   i. 997,010 rounded to the nearest ten thousand is _________________________.
   j. 360,034 rounded to the nearest hundred thousand is _______________________
   k. 436,709 rounded to the nearest hundred thousand is _______________________.
   l. 852,442 rounded to the nearest hundred thousand is _________________________.

Name _______________________________ Date _________________
3. Empire Elementary School needs to purchase water bottles for field day. There are 2,142 students. Principal Vadar rounded to the nearest hundred to estimate how many water bottles to order. Will there be enough water bottles for everyone? Explain.

4. Opening day at the New York State Fair in 2012 had an attendance of 46,753. Decide which place value to round 46,753 to if you were writing a newspaper article. Round the number and explain why it is an appropriate unit to round the attendance to.

5. A jet airplane holds about 65,000 gallons of gas. It uses about 7,460 gallons when flying between New York City and Los Angeles. Round each number to the largest place value. Then, find about how many trips the plane can take between cities before running out of fuel.
Lesson 10 Homework

Lesson 10: Use place value understanding to round multi-digit numbers to any place value using real world applications.

Name ___________________________________________ Date ______________________

1. Round 845,001 to the nearest
   a. thousand: ________________________________.
   b. ten thousand: ________________________________.
   c. hundred thousand: ________________________________.

2. Complete each statement by rounding the number to the given place value.
   a. 783 rounded to the nearest hundred is ________________________________.
   b. 12,781 rounded to the nearest hundred is ________________________________.
   c. 951,194 rounded to the nearest hundred is ________________________________.
   d. 1,258 rounded to the nearest thousand is ________________________________.
   e. 65,124 rounded to the nearest thousand is ________________________________.
   f. 99,451 rounded to the nearest thousand is ________________________________.
   g. 60,488 rounded to the nearest ten thousand is ________________________________.
   h. 80,801 rounded to the nearest ten thousand is ________________________________.
   i. 897,100 rounded to the nearest ten thousand is ________________________________.
   j. 880,005 rounded to the nearest hundred thousand is ________________________________.
   k. 545,999 rounded to the nearest hundred thousand is ________________________________.
   l. 689,114 rounded to the nearest hundred thousand is ________________________________.
3. Solve the following problems using pictures, numbers, or words.

a. In the 2011 New York City Marathon, 29,867 men finished the race, and 16,928 women finished the race. Each finisher was given a t-shirt. About how many men’s shirts were given away? About how many women’s shirts were given away? Explain how you found your answers.

b. In the 2010 New York City Marathon, 42,429 people finished the race and received a medal. Before the race, the medals had to be ordered. If you were the person in charge of ordering the medals and estimated how many to order by rounding, would you have ordered enough medals? Explain your thinking.

c. In 2010, 28,357 of the finishers were men, and 14,072 of the finishers were women. About how many more men finished the race than women? To determine your answer, did you round to the nearest ten thousand or thousand? Explain.
1. Solve the addition problems below using the standard algorithm.

   a. \[6,311 + 2,68 \]

   b. \[6,311 + 1,268 \]

   c. \[6,314 + 1,268 \]

   d. \[6,314 + 2,493 \]

   e. \[8,314 + 2,493 \]

   f. \[12,378 + 5,463 \]

   g. \[52,098 + 6048 \]

   h. \[34,698 + 71840 \]

   i. \[544811 + 356445 \]

   j. \[527 + 275 + 752 \]

   k. \[38,193 + 6,376 + 241,457 \]
Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement.

2. In September, Liberty Elementary School collected 32,537 cans for a fundraiser. In October, they collected 207,492 cans. How many cans were collected during September and October?

3. A baseball stadium sold some burgers. 2,806 were cheeseburgers. 1,679 burgers didn’t have cheese. How many burgers did they sell in all?

4. On Saturday night, 23,748 people attended the concert. On Sunday, 7,570 more people attended the concert than on Saturday. How many people attended the concert on Sunday?
Lesson 11 Homework

1. Solve the addition problems below using the standard algorithm.

   a. \(7,909\)  
      \[+\quad 1,044\]

   b. \(27,909\)  
      \[+\quad 9,740\]

   c. \(827,909\)  
      \[+\quad 42,989\]

   d. \(289,205\)  
      \[+\quad 11,845\]

   e. \(547,982\)  
      \[+\quad 114,849\]

   f. \(258,983\)  
      \[+\quad 121,897\]

   g. \(83,906\)  
      \[+\quad 35,808\]

   h. \(289,999\)  
      \[+\quad 91,849\]

   i. \(754,900\)  
      \[+\quad 245,100\]

Lesson 11: Use place value understanding to fluently add multi-digit whole numbers using the standard addition algorithm, and apply the algorithm to solve word problems using tape diagrams.
Lesson 11 Homework

Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement.

2. At the zoo, Brooke learned that one of the rhinos weighs 4,897 pounds, one of the giraffes weighs 2,667 pounds, one of the African elephants weighs 12,456 pounds, and one of the Komodo dragons weighs 123 pounds.
   a. What is the combined weight of the zoo’s African elephant and the giraffe?
   b. What is the combined weight of the zoo’s African elephant and the rhino?
   c. What is the combined weight of the zoo’s African elephant, the rhino, and the giraffe?
   d. What is the combined weight of the zoo’s Komodo dragon and the rhino?
### Place Value Chart

<table>
<thead>
<tr>
<th>millions</th>
<th>hundred thousands</th>
<th>ten thousands</th>
<th>thousands</th>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lesson 11:** Use place value understanding to fluently add multi-digit whole numbers using the standard addition algorithm, and apply the algorithm to solve word problems using tape diagrams.

©2015 Great Minds. eureka-math.org
Lesson 12 Problem Set

N a m e               D a t e

Estimate and then solve each problem. Model the problem with a tape diagram. Explain if your answer is reasonable.

1. For the bake sale, Connie baked 144 cookies. Esther baked 49 more cookies than Connie.
   a. About how many cookies did Connie and Esther bake? Estimate by rounding each number to the nearest ten before adding.
   b. Exactly how many cookies did Connie and Esther bake?
   c. Is your answer reasonable? Compare your estimate from (a) to your answer from (b). Write a sentence to explain your reasoning.
2. Raffle tickets were sold for a school fundraiser to parents, teachers, and students. 563 tickets were sold to teachers. 888 more tickets were sold to students than to teachers. 904 tickets were sold to parents.
   a. About how many tickets were sold to parents, teachers, and students? Round each number to the nearest hundred to find your estimate.

   b. Exactly how many tickets were sold to parents, teachers, and students?

   c. Assess the reasonableness of your answer in (b). Use your estimate from (a) to explain.
3. From 2010 to 2011, the population of Queens increased by 16,075. Brooklyn’s population increased by 11,870 more than the population increase of Queens.
   a. Estimate the total combined population increase of Queens and Brooklyn from 2010 to 2011. (Round the addends to estimate.)

   b. Find the actual total combined population increase of Queens and Brooklyn from 2010 to 2011.

   c. Assess the reasonableness of your answer in (b). Use your estimate from (a) to explain.
4. During National Recycling Month, Mr. Yardley’s class spent 4 weeks collecting empty cans to recycle.

<table>
<thead>
<tr>
<th>Week</th>
<th>Number of Cans Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10,827</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>10,522</td>
</tr>
<tr>
<td>4</td>
<td>20,011</td>
</tr>
</tbody>
</table>

a. During Week 2, the class collected 1,256 more cans than they did during Week 1. Find the total number of cans Mr. Yardley’s class collected in 4 weeks.

b. Assess the reasonableness of your answer in (a) by estimating the total number of cans collected.
Lesson 12 Homework

Name ____________________________ Date ______________

Estimate and then solve each problem. Model the problem with a tape diagram. Explain if your answer is reasonable.

1. There were 3,905 more hits on the school’s website in January than February. February had 9,854 hits. How many hits did the school’s website have during both months?
   a. About how many hits did the website have during January and February?

   b. Exactly how many hits did the website have during January and February?

   c. Is your answer reasonable? Compare your estimate from (a) to your answer from (b). Write a sentence to explain your reasoning.
2. On Sunday, 77,098 fans attended a New York Jets game. The same day, 3,397 more fans attended a New York Giants game than attended the Jets game. Altogether, how many fans attended the games?

a. What was the actual number of fans who attended the games?

b. Is your answer reasonable? Round each number to the nearest thousand to find an estimate of how many fans attended the games.
3. Last year on Ted’s farm, his four cows produced the following number of liters of milk:

<table>
<thead>
<tr>
<th>Cow</th>
<th>Liters of Milk Produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daisy</td>
<td>5,098</td>
</tr>
<tr>
<td>Betsy</td>
<td></td>
</tr>
<tr>
<td>Mary</td>
<td>9,980</td>
</tr>
<tr>
<td>Buttercup</td>
<td>7,087</td>
</tr>
</tbody>
</table>

a. Betsy produced 986 more liters of milk than Buttercup. How many liters of milk did all 4 cows produce?

b. Is your answer reasonable? Explain.
Lesson 13 Problem Set

1. Use the standard algorithm to solve the following subtraction problems.

   a. \[7,525 - 3,502\]  
   b. \[17,525 - 13,502\]  
   c. \[6,625 - 4,417\]  

   d. \[4,625 - 435\]  
   e. \[6,500 - 470\]  
   f. \[6,025 - 3,502\]  

   g. \[23,640 - 14,630\]  
   h. \[431,925 - 204,815\]  
   i. \[219,925 - 121,705\]  

Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement. Check your answers.

2. What number must be added to 13,875 to result in a sum of 25,884?
3. Artist Michelangelo was born on March 6, 1475. Author Mem Fox was born on March 6, 1946. How many years after Michelangelo was born was Fox born?

4. During the month of March, 68,025 pounds of king crab were caught. If 15,614 pounds were caught in the first week of March, how many pounds were caught in the rest of the month?

5. James bought a used car. After driving exactly 9,050 miles, the odometer read 118,064 miles. What was the odometer reading when James bought the car?
Lesson 13 Homework

1. Use the standard algorithm to solve the following subtraction problems.

   a. \[ 2,431 - 341 \]
   
   b. \[ 422,431 - 14,321 \]
   
   c. \[ 422,431 - 92,420 \]
   
   d. \[ 422,431 - 392,420 \]
   
   e. \[ 982,430 - 92,300 \]
   
   f. \[ 243,089 - 137,079 \]
   
   g. \[ 2,431 - 920 = \]
   
   h. \[ 892,431 - 520,800 = \]

2. What number must be added to 14,056 to result in a sum of 38,773?
Draw a tape diagram to model each problem. Use numbers to solve, and write your answers as a statement. Check your answers.

3. An elementary school collected 1,705 bottles for a recycling program. A high school also collected some bottles. Both schools collected 3,627 bottles combined. How many bottles did the high school collect?

4. A computer shop sold $356,291 worth of computers and accessories. It sold $43,720 worth of accessories. How much did the computer shop sell in computers?
5. The population of a city is 538,381. In that population, 148,170 are children.
   a. How many adults live in the city?

b. 186,101 of the adults are males. How many adults are female?
Lesson 14: Use place value understanding to decompose to smaller units up to three times using the standard subtraction algorithm, and apply the algorithm to solve word problems using tape diagrams.

1. Use the standard algorithm to solve the following subtraction problems.

   a. $2,460 - 1,370$
   b. $2,460 - 1,470$
   c. $97,684 - 49,700$
   d. $2,460 - 1,472$
   e. $124,306 - 31,171$
   f. $97,684 - 4,705$
   g. $124,006 - 121,117$
   h. $97,684 - 47,705$
   i. $124,060 - 31,117$

   Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement. Check your answers.

2. There are 86,400 seconds in one day. If Mr. Liegel is at work for 28,800 seconds a day, how many seconds a day is he away from work?
3. A newspaper company delivered 240,900 newspapers before 6 a.m. on Sunday. There were a total of 525,600 newspapers to deliver. How many more newspapers needed to be delivered on Sunday?

4. A theater holds a total of 2,013 chairs. 197 chairs are in the VIP section. How many chairs are not in the VIP section?

5. Chuck’s mom spent $19,155 on a new car. She had $30,064 in her bank account. How much money does Chuck’s mom have after buying the car?
1. Use the standard algorithm to solve the following subtraction problems.

   a. \[ 71,989 - 21,492 = \]
   b. \[ 371,989 - 96,492 = \]
   c. \[ 371,089 - 25,192 = \]

   d. \[ 879,989 - 721,492 = \]
   e. \[ 879,009 - 788,492 = \]
   f. \[ 879,989 - 21,070 = \]

   g. \[ 879,000 - 21,989 = \]
   h. \[ 279,389 - 191,492 = \]
   i. \[ 500,989 - 242,000 = \]
Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement. Check your answers.

2. Jason ordered 239,021 pounds of flour to be used in his 25 bakeries. The company delivering the flour showed up with 451,202 pounds. How many extra pounds of flour were delivered?

3. In May, the New York Public Library had 124,061 books checked out. Of those books, 31,117 were mystery books. How many of the books checked out were not mystery books?

4. A Class A dump truck can haul 239,000 pounds of dirt. A Class C dump truck can haul 600,200 pounds of dirt. How many more pounds can a Class C truck haul than a Class A truck?
1. Use the standard subtraction algorithm to solve the problems below.

a. \[ 101,660 \]
   \[- 91,680 \]

b. \[ 101,660 \]
   \[- 9,980 \]

c. \[ 242,561 \]
   \[- 44,702 \]

d. \[ 242,561 \]
   \[- 74,987 \]

e. \[ 1,000,000 \]
   \[- 592,000 \]

f. \[ 1,000,000 \]
   \[- 592,500 \]

g. \[ 600,658 \]
   \[- 592,569 \]

h. \[ 600,000 \]
   \[- 592,569 \]
Use tape diagrams and the standard algorithm to solve the problems below. Check your answers.

2. David is flying from Hong Kong to Buenos Aires. The total flight distance is 11,472 miles. If the plane has 7,793 miles left to travel, how far has it already traveled?

3. Tank A holds 678,500 gallons of water. Tank B holds 905,867 gallons of water. How much less water does Tank A hold than Tank B?

4. Mark had $25,081 in his bank account on Thursday. On Friday, he added his paycheck to the bank account, and he then had $26,010 in the account. What was the amount of Mark’s paycheck?
Lesson 15 Homework

**Name ___________________________ Date __________________**

1. Use the standard subtraction algorithm to solve the problems below.

   a. \[9,656 - 838\]  
   b. \[59,656 - 5,880\]  
   c. \[759,656 - 579,989\]  
   
   d. \[294,150 - 166,370\]  
   e. \[294,150 - 239,089\]  
   f. \[294,150 - 96,400\]
   
   g. \[800,500 - 79,989\]  
   h. \[800,500 - 45,500\]  
   i. \[800,500 - 276,664\]

   Use tape diagrams and the standard algorithm to solve the problems below. Check your answers.

2. A fishing boat was out to sea for 6 months and traveled a total of 8,578 miles. In the first month, the boat traveled 659 miles. How many miles did the fishing boat travel during the remaining 5 months?
Lesson 15: Use place value understanding to fluently decompose to smaller units multiple times in any place using the standard subtraction algorithm, and apply the algorithm to solve word problems using tape diagrams.

3. A national monument had 160,747 visitors during the first week of September. A total of 759,656 people visited the monument in September. How many people visited the monument in September after the first week?

4. Shadow Software Company earned a total of $800,000 selling programs during the year 2012. $125,300 of that amount was used to pay expenses of the company. How much profit did Shadow Software Company make in the year 2012?

5. At the local aquarium, Bubba the Seal ate 25,634 grams of fish during the week. If, on the first day of the week, he ate 6,987 grams of fish, how many grams of fish did he eat during the remainder of the week?
Estimate first, and then solve each problem. Model the problem with a tape diagram. Explain if your answer is reasonable.

1. On Monday, a farmer sold 25,196 pounds of potatoes. On Tuesday, he sold 18,023 pounds. On Wednesday, he sold some more potatoes. In all, he sold 62,409 pounds of potatoes.
   a. About how many pounds of potatoes did the farmer sell on Wednesday? Estimate by rounding each value to the nearest thousand, and then compute.
   b. Find the precise number of pounds of potatoes sold on Wednesday.
   c. Is your precise answer reasonable? Compare your estimate from (a) to your answer from (b). Write a sentence to explain your reasoning.
2. A gas station had two pumps. Pump A dispensed 241,752 gallons. Pump B dispensed 113,916 more gallons than Pump A.
   a. About how many gallons did both pumps dispense? Estimate by rounding each value to the nearest hundred thousand and then compute.

   b. Exactly how many gallons did both pumps dispense?

   c. Assess the reasonableness of your answer in (b). Use your estimate from (a) to explain.
3. Martin’s car had 86,456 miles on it. Of that distance, Martin’s wife drove 24,901 miles, and his son drove 7,997 miles. Martin drove the rest.
   a. About how many miles did Martin drive? Round each value to estimate.
   b. Exactly how many miles did Martin drive?
   c. Assess the reasonableness of your answer in (b). Use your estimate from (a) to explain.
4. A class read 3,452 pages the first week and 4,090 more pages in the second week than in the first week. How many pages had they read by the end of the second week? Is your answer reasonable? Explain how you know using estimation.

5. A cargo plane weighed 500,000 pounds. After the first load was taken off, the airplane weighed 437,981 pounds. Then 16,478 more pounds were taken off. What was the total number of pounds of cargo removed from the plane? Is your answer reasonable? Explain.
Lesson 16 Homework

1. Zachary’s final project for a college course took a semester to write and had 95,234 words. Zachary wrote 35,295 words the first month and 19,240 words the second month.
   a. Round each value to the nearest ten thousand to estimate how many words Zachary wrote during the remaining part of the semester.

   b. Find the exact number of words written during the remaining part of the semester.

   c. Use your answer from (a) to explain why your answer in (b) is reasonable.
2. During the first quarter of the year, 351,875 people downloaded an app for their smartphones. During the second quarter of the year, 101,949 fewer people downloaded the app than during the first quarter. How many downloads occurred during the two quarters of the year?
   a. Round each number to the nearest hundred thousand to estimate how many downloads occurred during the first two quarters of the year.
   b. Determine exactly how many downloads occurred during the first two quarters of the year.
   c. Determine if your answer is reasonable. Explain.
3. A local store was having a two-week Back to School sale. They started the sale with 36,390 notebooks. During the first week of the sale, 7,424 notebooks were sold. During the second week of the sale, 8,967 notebooks were sold. How many notebooks were left at the end of the two weeks? Is your answer reasonable?
Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement.

1. Sean’s school raised $32,587. Leslie’s school raised $18,749. How much more money did Sean’s school raise?

2. At a parade, 97,853 people sat in bleachers, and 388,547 people stood along the street. How many fewer people were in the bleachers than standing on the street?
3. A pair of hippos weighs 5,201 kilograms together. The female weighs 2,038 kilograms. How much more does the male weigh than the female?

4. A copper wire was 240 meters long. After 60 meters was cut off, it was double the length of a steel wire. How much longer was the copper wire than the steel wire at first?
Lesson 17 Homework

Name _______________________________ Date __________________

Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement.

1. Gavin has 1,094 toy building blocks. Avery only has 816 toy building blocks. How many more building blocks does Gavin have?

2. Container B holds 2,391 liters of water. Together, Container A and Container B hold 11,875 liters of water. How many more liters of water does Container A hold than Container B?
3. A piece of yellow yarn was 230 inches long. After 90 inches had been cut from it, the piece of yellow yarn was twice as long as a piece of blue yarn. At first, how much longer was the yellow yarn than the blue yarn?
Lesson 18 Problem Set

Name ___________________________________________  Date __________________

Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement.

1. In one year, the factory used 11,650 meters of cotton, 4,950 fewer meters of silk than cotton, and 3,500 fewer meters of wool than silk. How many meters in all were used of the three fabrics?

2. The shop sold 12,789 chocolate and 9,324 cookie dough cones. It sold 1,078 more peanut butter cones than cookie dough cones and 999 more vanilla cones than chocolate cones. What was the total number of ice cream cones sold?
3. In the first week of June, a restaurant sold 10,345 omelets. In the second week, 1,096 fewer omelets were sold than in the first week. In the third week, 2 thousand more omelets were sold than in the first week. In the fourth week, 2 thousand fewer omelets were sold than in the first week. How many omelets were sold in all in June?
Lesson 18: Solve multi-step word problems modeled with tape diagrams, and assess the reasonableness of answers using rounding.

Name ________________________________ Date ______________

Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement.

1. There were 22,869 children, 49,563 men, and 2,872 more women than men at the fair. How many people were at the fair?

2. Number A is 4,676. Number B is 10,043 greater than A. Number C is 2,610 less than B. What is the total value of numbers A, B, and C?
3. A store sold a total of 21,650 balls. It sold 11,795 baseballs. It sold 4,150 fewer basketballs than baseballs. The rest of the balls sold were footballs. How many footballs did the store sell?
Using the diagrams below, create your own word problem. Solve for the value of the variable.

1. 

215,554

2. 

90,457
Lesson 19 Problem Set

3. Draw a tape diagram to model the following equation. Create a word problem. Solve for the value of the variable.

\[ 26,854 = 17,729 + 3,731 + A \]

4. Draw a tape diagram to model the following equation. Create a word problem. Solve for the value of the variable.

\[ 26,854 = 17,729 + 3,731 + A \]
Lesson 19: Create and solve multi-step word problems from given tape diagrams and equations.

Name __________________________ Date ______________

Using the diagrams below, create your own word problem. Solve for the value of the variable.

1. At the local botanical gardens, there are __________ Redwoods and __________ Cypress trees.
   There are a total of __________ Redwood, Cypress, and Dogwood trees.
   How many __________?

2. There are 65,302 __________.
   There are 37,436 fewer __________.
   How many __________?

©2015 Great Minds. eureka-math.org
3. Use the following tape diagram to create a word problem. Solve for the value of the variable.

```
A

215,561

36,538

42,086
```

4. Draw a tape diagram to model the following equation. Create a word problem. Solve for the value of the variable.

\[ 27,894 + A + 6,892 = 40,392 \]