Lesson 2 Problem Set

Name ___________________________ Date ______________

1. Round the factors to estimate the products.
   a. $597 \times 52 \approx \underline{\phantom{0000}} \times \underline{\phantom{0000}} = \underline{\phantom{0000000000}}$
      
      A reasonable estimate for $597 \times 52$ is \underline{\phantom{0000000000}}.
   
   b. $1,103 \times 59 \approx \underline{\phantom{0000}} \times \underline{\phantom{0000}} = \underline{\phantom{0000000000}}$
      
      A reasonable estimate for $1,103 \times 59$ is \underline{\phantom{0000000000}}.
   
   c. $5,840 \times 25 \approx \underline{\phantom{0000}} \times \underline{\phantom{0000}} = \underline{\phantom{0000000000}}$
      
      A reasonable estimate for $5,840 \times 25$ is \underline{\phantom{0000000000}}.

2. Complete the table using your understanding of place value and knowledge of rounding to estimate the product.

<table>
<thead>
<tr>
<th>Expressions</th>
<th>Rounded Factors</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. $2,809 \times 42$</td>
<td>$3,000 \times 40$</td>
<td>$120,000$</td>
</tr>
<tr>
<td>b. $28,090 \times 420$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. $8,932 \times 59$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. $89 \times 63$ tens</td>
<td></td>
<td></td>
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<tr>
<td>e. $398$ hundreds $\times 52$</td>
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<td></td>
</tr>
</tbody>
</table>
3. For which of the following expressions would 200,000 be a reasonable estimate? Explain how you know.

\[2,146 \times 12 \quad 21,467 \times 121 \quad 2,146 \times 121 \quad 21,477 \times 1,217\]

4. Fill in the missing factors to find the given estimated product.
   a. \[571 \times 43 \approx \text{____________} \times \text{____________} = 24,000\]
   b. \[726 \times 674 \approx \text{____________} \times \text{____________} = 490,000\]
   c. \[8,379 \times 541 \approx \text{____________} \times \text{____________} = 4,000,000\]

5. There are 19,763 tickets available for a New York Knicks home game. If there are 41 home games in a season, about how many tickets are available for all the Knicks’ home games?

   a. About how much money will he have saved after 4 years?
   b. Will your estimate be lower or higher than the actual amount Michael will save? How do you know?