Adding and Subtracting with Tenths

You already know how to add or subtract decimals with tenths. They are just fractions with a denominator of 10.

Compare these additions that are written with decimals or fractions.

<table>
<thead>
<tr>
<th>0.1 + 0.5 = 0.6</th>
<th>8.4 – 2.3 = 6.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ \frac{1}{10} + \frac{5}{10} = \frac{6}{10} ]</td>
<td>[ 8 \frac{4}{10} - 2 \frac{3}{10} = 6 \frac{1}{10} ]</td>
</tr>
</tbody>
</table>

There is one tricky part though:
0.6 + 0.7 is NOT 0.13 !!

To see why, add the fractions. Notice that six tenths and seven tenths makes more than one whole!

<table>
<thead>
<tr>
<th>0.6 + 0.7 = 1.3</th>
<th>1.5 + 0.9 = 2.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ \frac{6}{10} + \frac{7}{10} = \frac{13}{10} = 1 \frac{3}{10} ]</td>
<td>[ 1 \frac{5}{10} + \frac{9}{10} = 2 \frac{4}{10} ]</td>
</tr>
</tbody>
</table>

1. Write an addition or subtraction sentence for each “number line jump.”

   a. You are at 0.7, and you jump five tenths to the right. _____________________________________

   b. You are at 0.6, and you jump eight tenths to the right. ____________________________________

   c. You are at 1.1, and you jump eight tenths to the left. _____________________________________

   d. You are at 1.3, and you jump four tenths to the left. _____________________________________

   e. You are at 0.2, and you jump eleven tenths to the right. ________________________________

2. Solve the fraction additions, and then write them using decimals.

   a. \[ \frac{2}{10} + \frac{7}{10} = \] 

\[ 0.2 + \]

   b. \[ \frac{5}{10} + \frac{6}{10} = \]

   c. \[ \frac{9}{10} + \frac{8}{10} = \]

3. Add and subtract.

   a. 0.9 + 0.2 = _______  
      1.9 + 0.2 = _______  

   b. 0.5 + 0.7 = _______  
      3.5 + 0.7 = _______  

   c. 0.8 + 0.7 = _______  
      0.8 + 2.7 = _______  

   d. 1.8 – 0.9 = _______  
      5.8 – 0.9 = _______