NS6-82: Thousandths

- If a thousands' cube is used to represent a whole number, then a hundreds block represents a tenth, a tens block represents a hundredth, and a ones block represents a thousandth of a whole.

1. Beside each number, write the place value of the underlined digit.
   a) 3.274  
   b) 9.273  
   c) 2.537  
   d) 7.129  
   e) 5.214  
   f) 8.978

2. Write the following numbers into the place value chart. The first one has been done for you.

<table>
<thead>
<tr>
<th>ones</th>
<th>tenths</th>
<th>hundredths</th>
<th>thousands</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.512</td>
<td>6</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6.354</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.313</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Write the following decimals as fractions.
   a) .652 =  
   b) .372 =  
   c) .20 =  
   d) .002 =

4. Write each decimal in expanded form.
   a) .237 = 2 tenths + 3 hundredths + 7 thousandths
   b) .325 =
   c) 6.336 =

5. Write the following fractions as decimals.
   a) \( \frac{49}{100} = \)
   b) \( \frac{50}{100} = \)
   c) \( \frac{758}{1000} = \)
   d) \( \frac{25}{1000} = \)

6. Compare each pair of decimals by writing < or > in the box.
   HINT: Add zeroes wherever necessary to give each number the same number of digits after the decimal point.

   a) .375 < .378
   b) .233 < .47
   c) .956 > .1
   d) .27 < .207
   e) .7 < .32
   f) .8 < .516
1. Write a fraction for each shaded part. Then add the fractions, and shade your answer. The first one has been done for you.

   a) \[
   \frac{25}{100} + \frac{50}{100} = \frac{75}{100}
   \]

   b) 

   c) 

   d) 

2. Write the decimals that correspond to the fractions in Question 1 above.

   a) \(.25 + .50 = .75\)
   
   b) 
   
   c) 
   
   d) 

3. Add the decimals by lining up the digits. Be sure that your final answer is expressed as a decimal.

   a) \(0.32 + 0.57 = \)
   
   b) \(0.91 + 0.04 = \)
   
   c) \(0.42 + 0.72 = \)
   
   d) \(0.22 + 0.57 = \)
   
   e) \(0.3 + 0.36 = \)
   
   f) \(0.5 + 0.48 = \)
   
   g) \(0.81 + 0.58 = \)
   
   h) \(0.46 + 0.22 = \)

4. Line up the decimals and add the following numbers.

   a) \(4.32 + 2.17\)
   
   b) \(3.64 + 5.23\)
   
   c) \(9.46 + 3.12\)
   
   d) \(0.87 + 0.02\)
   
   e) \(4.8 + 0.31\)

5. Each wing of a butterfly is 3.72 cm wide. It’s body is .46 cm wide. How wide is the butterfly?

6. Anne made punch by mixing .63 litres of juice with 3.6 litres of ginger ale. How many litres of punch did she make?
1. Subtract by crossing out the correct number of boxes.

\[
\begin{align*}
\text{a)} & \quad \frac{50}{100} - \frac{30}{100} = \underline{\quad} \\
\text{b)} & \quad \frac{38}{100} - \frac{12}{100} = \underline{\quad} \\
\text{c)} & \quad \frac{69}{100} - \frac{34}{100} = \underline{\quad}
\end{align*}
\]

2. Write the decimals that correspond to the fractions in Question 1 above.

\[
\begin{align*}
\text{a)} & \quad .50 - .30 = .20 \\
\text{b)} & \quad \underline{\quad} \\
\text{c)} & \quad \underline{\quad}
\end{align*}
\]

3. Subtract the decimals by lining up the digits.

\[
\begin{align*}
\text{a)} & \quad 0.53 - 0.21 = \underline{\quad} \\
\text{b)} & \quad 0.88 - 0.34 = \underline{\quad} \\
\text{c)} & \quad 0.46 - 0.23 = \underline{\quad} \\
\text{d)} & \quad 0.75 - 0.21 = \underline{\quad} \\
\text{e)} & \quad 0.33 - .17 = \underline{\quad} \\
\text{f)} & \quad 0.64 - 0.38 = \underline{\quad} \\
\text{g)} & \quad 0.92 - 0.59 = \underline{\quad} \\
\text{h)} & \quad 0.53 - 0.26 = \underline{\quad} \\
\text{i)} & \quad 1.00 - .82 = \underline{\quad} \\
\text{j)} & \quad 1.00 - 0.36 = \underline{\quad} \\
\text{k)} & \quad 1.00 - 0.44 = \underline{\quad} \\
\text{l)} & \quad 1.00 - 0.29 = \underline{\quad}
\end{align*}
\]

4. Subtract the following decimals.

\[
\begin{align*}
\text{a)} & \quad .82 - .45 \quad \text{b)} & \quad .97 - .38 \quad \text{c)} & \quad .72 - .64 \quad \text{d)} & \quad .31 - .17 \\
\text{e)} & \quad .58 - .3 \quad \text{f)} & \quad .62 - .6 \quad \text{g)} & \quad .98 - .03 \quad \text{h)} & \quad .53 - .09
\end{align*}
\]

5. Find the missing decimal in each of the following.

\[
\begin{align*}
\text{a)} & \quad 1 = .35 + \underline{\quad} \\
\text{b)} & \quad 1 = .72 + \underline{\quad} \\
\text{c)} & \quad 1 = .41 + \underline{\quad}
\end{align*}
\]
1. Add by drawing a base ten model. Then, using the chart provided, line up the decimal points and add.

   NOTE: Use a hundreds block for a whole and a tens block for one tenth.

   a) \(1.23 + 1.12\)
   
   = \[
   \begin{array}{c}
   \text{ones} \\
   \hline
   \text{tens} \\
   \hline
   \text{hundredths}
   \end{array}
   \]

   = \[
   \begin{array}{c}
   \text{ones} \\
   \hline
   \text{tens} \\
   \hline
   \text{hundredths}
   \end{array}
   \]

   b) \(1.46 + 1.33\)

   = \[
   \begin{array}{c}
   \text{ones} \\
   \hline
   \text{tens} \\
   \hline
   \text{hundredths}
   \end{array}
   \]

2. Draw a model of the greater number. Then subtract by crossing out blocks as shown in part a).

   a) \(2.35 - 1.12 = 1.23\)

   = \[
   \begin{array}{c}
   \text{ones} \\
   \hline
   \text{tens} \\
   \hline
   \text{hundredths}
   \end{array}
   \]

3. Add or subtract.

   a) \(\begin{array}{c}
   3 \ 1 \ 2 \\
   + \ 4 \ 5 \ 7
   \end{array}\)

   b) \(\begin{array}{c}
   5 \ 8 \ 9 \\
   + \ 1 \ 3 \ 4
   \end{array}\)

   c) \(\begin{array}{c}
   3 \ 8 \ 6 \\
   - \ 2 \ 1 \ 5
   \end{array}\)

   d) \(\begin{array}{c}
   4 \ 2 \ 3 \\
   - \ 2 \ 1 \ 9
   \end{array}\)

   e) \(\begin{array}{c}
   1 \ 8 \ 0 \ 5 \\
   - \ 1 \ 2 \ 7 \ 3
   \end{array}\)

4. Subtract each pair of numbers by lining up the decimal points.

   a) \(7.87 - 4.03\)

   b) \(9.74 - 6.35\)

   c) \(2.75 - 0.28\)

   d) \(28.71 - 1.4\)

   e) \(17.9 - 4.29\)

5. The average temperature in Jakarta is 30.33°C and, in Toronto it is 11.9°C. How much warmer is Jakarta than Toronto?

6. Mercury is 57.6 million kilometres from the Sun.

   Earth is 148.64 million kilometres from the Sun. How much farther from the Sun is the Earth?

7. Continue the patterns.

   a) \(.2, .4, .6, \ldots, \ldots, \ldots\)

   b) \(.3, .6, .9, \ldots, \ldots, \ldots\)