1. Shade the first 7 units of the tape diagram. Count by tenths to label the number line using a fraction and a decimal for each point. Circle the decimal that represents the shaded part.

0 \[\begin{array}{cccccc}
0.1 & \_ & \_ & \_ & \_ & \_ & 1
\end{array}\]

\[
\frac{1}{10}
\]

2. Write the total amount of water in fraction form and decimal form. Shade the last bottle to show the correct amount.

\[
\frac{1}{2} \text{ L} = \frac{}{10} \text{ L}
\]

\[
\frac{1}{2} \text{ L} = \frac{0.9}{10} \text{ L}
\]

3. Write the total weight of the food on each scale in fraction form or decimal form.

\[
\frac{8}{10} \text{ kg}
\]

\[
\text{kg}
\]
4. Write the length of the bug in centimeters. (The drawing is not to scale.)

Fraction form: __________ cm
Decimal form: __________ cm

How far does the bug need to walk before its nose is at the 1 cm mark? __________ cm

5. Fill in the blank to make the sentence true in both fraction form and decimal form.

a. \( \frac{8}{10} \) cm + ______ cm = 1 cm
   0.8 cm + ______ cm = 1.0 cm

b. \( \frac{2}{10} \) cm + ______ cm = 1 cm
   0.2 cm + ______ cm = 1.0 cm

c. \( \frac{6}{10} \) cm + ______ cm = 1 cm
   0.6 cm + ______ cm = 1.0 cm

6. Match each amount expressed in unit form to its equivalent fraction and decimal forms.

| 3 tenths | \( \frac{5}{10} \) | 0.2 |
| 5 tenths | \( \frac{9}{10} \) | 0.6 |
| 6 tenths | \( \frac{2}{10} \) | 0.3 |
| 9 tenths | \( \frac{3}{10} \) | 0.5 |
| 2 tenths | \( \frac{6}{10} \) | 0.9 |
Lesson 1 Homework

Name ___________________________________________ Date __________________

Shade the first 4 units of the tape diagram. Count by tenths to label the number line using a fraction and a decimal for each point. Circle the decimal that represents the shaded part.

0 0.1 \[\frac{1}{10}\] __ __ __ __ __ __ __ __ __ __ 1

2. Write the total amount of water in fraction form and decimal form. Shade the last bottle to show the correct amount.

\[ L = \frac{0.5}{1} \quad L = \frac{0.5}{1} \quad L = 0.3 \]

3. Write the total weight of the food on each scale in fraction form or decimal form.

\[ \frac{0.7}{1} \quad \frac{\frac{6}{10}}{1} \quad \frac{}{1} \]

Lesson 1: Use metric measurement to model the decomposition of one whole into tenths.
4. Write the length of the bug in centimeters. (The drawing is not to scale.)

Fraction form: ________ cm
Decimal form: ________ cm

If the bug walks 0.5 cm farther, where will its nose be? ________ cm

5. Fill in the blank to make the sentence true in both fraction and decimal form.

a. \( \frac{4}{10} \) cm + ______ cm = 1 cm
   0.4 cm + ______ cm = 1.0 cm
b. \( \frac{3}{10} \) cm + ______ cm = 1 cm
   0.3 cm + ______ cm = 1.0 cm
c. \( \frac{8}{10} \) cm + ______ cm = 1 cm
   0.8 cm + ______ cm = 1.0 cm

6. Match each amount expressed in unit form to its equivalent fraction and decimal.

<table>
<thead>
<tr>
<th>Amount</th>
<th>Fraction</th>
<th>Decimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 tenths</td>
<td>( \frac{4}{10} )</td>
<td>0.4</td>
</tr>
<tr>
<td>4 tenths</td>
<td>( \frac{7}{10} )</td>
<td>0.6</td>
</tr>
<tr>
<td>6 tenths</td>
<td>( \frac{5}{10} )</td>
<td>0.2</td>
</tr>
<tr>
<td>7 tenths</td>
<td>( \frac{2}{10} )</td>
<td>0.5</td>
</tr>
<tr>
<td>5 tenths</td>
<td>( \frac{6}{10} )</td>
<td>0.7</td>
</tr>
</tbody>
</table>
Lesson 2: Use metric measurement and area models to represent tenths as fractions greater than 1 and decimal numbers.

1. For each length given below, draw a line segment to match. Express each measurement as an equivalent mixed number.
   a. 2.6 cm
   b. 3.4 cm
   c. 3.7 cm
   d. 4.2 cm
   e. 2.5 cm

2. Write the following as equivalent decimals. Then, model and rename the number as shown below.
   a. 2 ones and 6 tenths = __________
      \[
      \frac{6}{10} = \frac{6}{10} + 2 = 2 + 0.6 = 2.6
      \]
Lesson 2: Use metric measurement and area models to represent tenths as fractions greater than 1 and decimal numbers.

b. 4 ones and 2 tenths = __________

c. $3\frac{4}{10} = $ __________

d. $2\frac{5}{10} = $ __________

How much more is needed to get to 5? _________________

e. $\frac{37}{10} = $ __________

How much more is needed to get to 5? _________________
1. For each length given below, draw a line segment to match. Express each measurement as an equivalent mixed number.
   a. 2.6 cm
   b. 3.5 cm
   c. 1.7 cm
   d. 4.3 cm
   e. 2.2 cm

2. Write the following in decimal form. Then, model and rename the number as shown below.
   a. 2 ones and 4 tenths = __________

   \[ \frac{4}{10} + \frac{2}{10} = \frac{6}{10} = \frac{3}{5} \]

   2.4
Lesson 2: Use metric measurement and area models to represent tenths as fractions greater than 1 and decimal numbers.

b. 3 ones and 8 tenths = __________

![Diagram of 3 ones and 8 tenths]

How much more is needed to get to 5? __________

c. $4 \frac{1}{10}$ = __________

![Diagram of $4 \frac{1}{10}$]

d. $1 \frac{4}{10}$ = __________

![Diagram of $1 \frac{4}{10}$]

How much more is needed to get to 5? __________

e. $\frac{33}{10}$ = __________

![Diagram of $\frac{33}{10}$]

How much more is needed to get to 5? __________
Lesson 2: Use metric measurement and area models to represent tenths as fractions greater than 1 and decimal numbers.
Lesson 3 Problem Set

1. Circle groups of tenths to make as many ones as possible.

   a. How many tenths in all?
   
   There are _______ tenths.
   
   Write and draw the same number using ones and tenths.
   
   Decimal Form: _______
   
   How much more is needed to get to 3? _______

   b. How many tenths in all?
   
   There are _______ tenths.
   
   Write and draw the same number using ones and tenths.
   
   Decimal Form: _______
   
   How much more is needed to get to 4? _______

2. Draw disks to represent each number using tens, ones, and tenths. Then, show the expanded form of the number in fraction form and decimal form as shown. The first one has been completed for you.

   a. 4 tens 2 ones 6 tenths

   Fraction Expanded Form
   \[(4 \times 10) + (2 \times 1) + (6 \times \frac{1}{10}) = 42 \frac{6}{10}\]

   Decimal Expanded Form
   \[(4 \times 10) + (2 \times 1) + (6 \times 0.1) = 42.6\]

   b. 1 ten 7 ones 5 tenths
Lesson 3: Represent mixed numbers with units of tens, ones, and tenths with place value disks, on the number line, and in expanded form.

3. Complete the chart.

<table>
<thead>
<tr>
<th>Point</th>
<th>Number Line</th>
<th>Decimal Form</th>
<th>Mixed Number (ones and fraction form)</th>
<th>Expanded Form (fraction or decimal form)</th>
<th>How much to get to the next one?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td></td>
<td>$\frac{9}{10}$</td>
<td></td>
<td>0.1</td>
</tr>
<tr>
<td>b.</td>
<td>17 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
<td></td>
<td>$(7 \times 10) + (4 \times 1) + (7 \times \frac{1}{10})$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td></td>
<td></td>
<td>$22 \frac{2}{10}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td></td>
<td></td>
<td>$(8 \times 10) + (8 \times 0.1)$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 3 Homework

1. Circle groups of tenths to make as many ones as possible.

   a. How many tenths in all?

   Write and draw the same number using ones and tenths.

   Decimal Form: ________

   How much more is needed to get to 2? ________

   There are ________ tenths.

   b. How many tenths in all?

   Write and draw the same number using ones and tenths.

   Decimal Form: ________

   How much more is needed to get to 3? ________

   There are ________ tenths.

2. Draw disks to represent each number using tens, ones, and tenths. Then, show the expanded form of the number in fraction form and decimal form as shown. The first one has been completed for you.

   a. 3 tens 4 ones 3 tenths

   Fraction Expanded Form
   \((3 \times 10) + (4 \times 1) + (3 \times \frac{1}{10}) = 34 \frac{3}{10}\)

   Decimal Expanded Form
   \((3 \times 10) + (4 \times 1) + (3 \times 0.1) = 34.3\)

   b. 5 tens 3 ones 7 tenths

   Fraction Expanded Form

   Decimal Expanded Form
c. 3 tens 2 ones 3 tenths

d. 8 tens 4 ones 8 tenths

3. Complete the chart.

<table>
<thead>
<tr>
<th>Point</th>
<th>Number Line</th>
<th>Decimal Form</th>
<th>Mixed Number (ones and fraction form)</th>
<th>Expanded Form (fraction or decimal form)</th>
<th>How much to get to the next one?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td></td>
<td>( \frac{6}{10} )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>24</td>
<td>25</td>
<td>( (6 \times 10) + (3 \times 1) + (6 \times \frac{1}{10}) )</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>c.</td>
<td></td>
<td></td>
<td>( 71\frac{3}{10} )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td></td>
<td></td>
<td>( (9 \times 10) + (9 \times 0.1) )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 3:
Represent mixed numbers with units of tens, ones, and tenths with place value disks, on the number line, and in expanded form.

<table>
<thead>
<tr>
<th>Point</th>
<th>Number Line</th>
<th>Decimal Form</th>
<th>Mixed Number (ones and fraction form)</th>
<th>Expanded Form (fraction or decimal form)</th>
<th>How much more is needed to get to the next one?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>b.</td>
<td></td>
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<tr>
<td>c.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td></td>
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</tr>
</tbody>
</table>

tenths on a number line
Lesson 4 Problem Set

Name ____________________________ Date ______________

1. a. What is the length of the shaded part of the meter stick in centimeters?

   What is the length of the shaded part of the meter stick in centimeters?

   b. What fraction of a meter is 1 centimeter?

   c. In fraction form, express the length of the shaded portion of the meter stick.

   d. In decimal form, express the length of the shaded portion of the meter stick.

   e. What fraction of a meter is 10 centimeters?

2. Fill in the blanks.

   a. 1 tenth = ____ hundredths

   b. \( \frac{1}{10} \) m = \( \frac{100}{100} \) m

   c. \( \frac{2}{10} \) m = \( \frac{20}{100} \) m

3. Use the model to add the shaded parts as shown. Write a number bond with the total written in decimal form and the parts written as fractions. The first one has been done for you.

   a. \( \frac{1}{10} \) m + \( \frac{3}{100} \) m = \( \frac{13}{100} \) m = 0.13 m
Lesson 4 Problem Set

4. On each meter stick, shade in the amount shown. Then, write the equivalent decimal.
   a. \(\frac{8}{10}\) m
   b. \(\frac{7}{100}\) m
   c. \(\frac{19}{100}\) m

5. Draw a number bond, pulling out the tenths from the hundredths as in Problem 3. Write the total as the equivalent decimal.
   a. \(\frac{19}{100}\) m
   b. \(\frac{28}{100}\) m
   c. \(\frac{77}{100}\)
   d. \(\frac{94}{100}\)
1. a. What is the length of the shaded part of the meter stick in centimeters?

b. What fraction of a meter is 3 centimeters?

c. In fraction form, express the length of the shaded portion of the meter stick.

d. In decimal form, express the length of the shaded portion of the meter stick.

e. What fraction of a meter is 30 centimeters?

2. Fill in the blanks.

a. \(5\) tenths = _____ hundredths

b. \(\frac{5}{10} \text{ m} = \frac{50}{100} \text{ m}\)

c. \(\frac{4}{10} \text{ m} = \frac{40}{100} \text{ m}\)

3. Use the model to add the shaded parts as shown. Write a number bond with the total written in decimal form and the parts written as fractions. The first one has been done for you.

\[\frac{1}{10} \text{ m} + \frac{3}{100} \text{ m} = \frac{13}{100} \text{ m} = 0.13 \text{ m}\]
Lesson 4: Use meters to model the decomposition of one whole into hundredths. Represent and count hundredths.

4. On each meter stick, shade in the amount shown. Then, write the equivalent decimal.
   a. $\frac{9}{10}$ m
   b. $\frac{15}{100}$ m
   c. $\frac{41}{100}$ m

5. Draw a number bond, pulling out the tenths from the hundredths, as in Problem 3 of the Homework. Write the total as the equivalent decimal.
   a. $\frac{23}{100}$ m
   b. $\frac{38}{100}$ m
   c. $\frac{82}{100}$ m
   d. $\frac{76}{100}$ m
Lesson 4: Use meters to model the decomposition of one whole into hundredths. Represent and count hundredths.

tape diagram in tenths
Lesson 5 Problem Set

1. Find the equivalent fraction using multiplication or division. Shade the area models to show the equivalency. Record it as a decimal.
   
   a. \( \frac{3}{10} \times \frac{10}{10} = \frac{30}{100} \)
   
   b. \( \frac{50}{100} \div \frac{100}{100} = \frac{50}{10} \)

2. Complete the number sentences. Shade the equivalent amount on the area model, drawing horizontal lines to make hundredths.
   
   a. 37 hundredths = ____ tenths + ____ hundredths
      
      Fraction form: ______
      
      Decimal form: ______

   b. 75 hundredths = ____ tenths + ____ hundredths
      
      Fraction form: ______
      
      Decimal form: ______

3. Circle hundredths to compose as many tenths as you can. Complete the number sentences. Represent each with a number bond as shown.
   
   a. ______ hundredths = _____ tenth + _____ hundredths

Lesson 5: Model the equivalence of tenths and hundredths using the area model and place value disks.
**Lesson 5 Problem Set**

### 4. Use both tenths and hundredths place value disks to represent each number. Write the equivalent number in decimal, fraction, and unit form.

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01</td>
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</tr>
</tbody>
</table>

### b. _____ hundredths = _____ tenths + _____ hundredths

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| a. | \( \frac{3}{100} \) = 0. _____
| c. | _____ = 0.72
| e. | _____ = 0. _____
| f. | _____ = 0. _____

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| b. | \( \frac{15}{100} \) = 0. _____
| d. | _____ = 0.80
|   | 7 tenths 2 hundredths
|   | 80 hundredths

---

**Lesson 5:** Model the equivalence of tenths and hundredths using the area mode and place value disks.
Lesson 5: Model the equivalence of tenths and hundredths using the area model and place value disks.

Name _____________________________ Date ____________________

1. Find the equivalent fraction using multiplication or division. Shade the area models to show the equivalency. Record it as a decimal.
   a. \( \frac{4}{10} \times \frac{10}{100} = \frac{40}{100} \)
   b. \( \frac{60}{100} \div \frac{100}{10} = \frac{6}{10} \)

2. Complete the number sentences. Shade the equivalent amount on the area model, drawing horizontal lines to make hundredths.
   a. 36 hundredths = ____ tenths + ____ hundredths
      Decimal form: ________
      Fraction form: ________
   b. 82 hundredths = ____ tenths + ____ hundredths
      Decimal form: ________
      Fraction form: ________

3. Circle hundredths to compose as many tenths as you can. Complete the number sentences. Represent each with a number bond as shown.
   a. 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01
      ____ hundredths = ____ tenth + ____ hundredths
Lesson 5: Model the equivalence of tenths and hundredths using the area model and place value disks.

4. Use both tenths and hundredths place value disks to represent each number. Write the equivalent number in decimal, fraction, and unit form.

<table>
<thead>
<tr>
<th></th>
<th>Tenths</th>
<th>Hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>[ \frac{4}{100} = 0. ]</td>
<td>0 hundredths</td>
</tr>
<tr>
<td>b.</td>
<td>[ \frac{13}{100} = 0. ]</td>
<td>1 tenth 3 hundredths</td>
</tr>
<tr>
<td>c.</td>
<td>= 0.41</td>
<td>41 hundredths</td>
</tr>
<tr>
<td>d.</td>
<td>= 0.90</td>
<td>9 tenths</td>
</tr>
<tr>
<td>e.</td>
<td>= 0.</td>
<td>6 tenths 3 hundredths</td>
</tr>
<tr>
<td>f.</td>
<td>= 0.</td>
<td>90 hundredths</td>
</tr>
</tbody>
</table>
Lesson 5: Model the equivalence of tenths and hundredths using the area model and place value disks.
Lesson 6: Use the area model and number line to represent mixed numbers with units of ones, tenths, and hundredths in fraction and decimal forms.

1. Shade the area models to represent the number, drawing horizontal lines to make hundredths as needed. Locate the corresponding point on the number line. Label with a point, and record the mixed number as a decimal.
   
   a. \( 1 \frac{15}{100} = \quad .\quad \)

   
   b. \( 2 \frac{47}{100} = \quad .\quad \)

2. Estimate to locate the points on the number lines.
   
   a. \( 2 \frac{95}{100} \)

   b. \( 7 \frac{52}{100} \)
3. Write the equivalent fraction and decimal for each of the following numbers.

<table>
<thead>
<tr>
<th>a. 1 one 2 hundredths</th>
<th>b. 1 one 17 hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. 2 ones 8 hundredths</td>
<td>d. 2 ones 27 hundredths</td>
</tr>
<tr>
<td>e. 4 ones 58 hundredths</td>
<td>f. 7 ones 70 hundredths</td>
</tr>
</tbody>
</table>

4. Draw lines from dot to dot to match the decimal form to both the unit form and fraction form. All unit forms and fractions have at least one match, and some have more than one match.

- 7 ones 13 hundredths
- 7 ones 3 hundredths
- 7 ones 3 tenths
- 7 tens 3 ones
1. Shade the area models to represent the number, drawing horizontal lines to make hundredths as needed. Locate the corresponding point on the number line. Label with a point, and record the mixed number as a decimal.

   a. $2\frac{25}{100} = \underline{.\underline{\quad}}$

   [Area model for $2\frac{25}{100}$]

   [Number line for $2\frac{25}{100}$]

   b. $3\frac{17}{100} = \underline{.\underline{\quad}}$

   [Area model for $3\frac{17}{100}$]

   [Number line for $3\frac{17}{100}$]

2. Estimate to locate the points on the number lines.

   a. $5\frac{90}{100}$

   [Number line for $5\frac{90}{100}$]

   b. $3\frac{25}{100}$

   [Number line for $3\frac{25}{100}$]
3. Write the equivalent fraction and decimal for each of the following numbers.

<table>
<thead>
<tr>
<th></th>
<th>a. 2 ones 2 hundredths</th>
<th>b. 2 ones 16 hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>c.</td>
<td>3 ones 7 hundredths</td>
<td>d. 1 one 18 hundredths</td>
</tr>
<tr>
<td>e.</td>
<td>9 ones 62 hundredths</td>
<td>f. 6 ones 20 hundredths</td>
</tr>
</tbody>
</table>

4. Draw lines from dot to dot to match the decimal form to both the unit form and fraction form. All unit forms and fractions have at least one match, and some have more than one match.

- 4 ones 18 hundredths → 4.80 → 4 \(\frac{18}{100}\)
- 4 ones 8 hundredths → 4.8 → 48
- 4 ones 8 tenths → 4.18 → 4 \(\frac{8}{100}\)
- 4 tens 8 ones → 4.08 → 4 \(\frac{80}{100}\)
- 48
Lesson 6: Use the area model and number line to represent mixed numbers with units of ones, tenths, and hundredths in fraction and decimal forms.
Lesson 6: Use the area model and number line to represent mixed numbers with units of ones, tenths, and hundredths in fraction and decimal forms.
1. Write a decimal number sentence to identify the total value of the place value disks.
   a. 
   
   \[ \underline{2 \text{ tens}} + \underline{5 \text{ tenths}} + \underline{3 \text{ hundredths}} = \underline{\text{total}} \]
   
   b. 
   
   \[ \underline{5 \text{ hundreds}} + \underline{4 \text{ hundredths}} = \underline{\text{total}} \]

2. Use the place value chart to answer the following questions. Express the value of the digit in unit form.

<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1</td>
<td>6</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

   a. The digit _____ is in the hundreds place. It has a value of ________________________.

   b. The digit _____ is in the tens place. It has a value of ________________________.

   c. The digit _____ is in the tenths place. It has a value of ________________________.

   d. The digit _____ is in the hundredths place. It has a value of ________________________.

<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

   e. The digit _____ is in the hundreds place. It has a value of ________________________.

   f. The digit _____ is in the tens place. It has a value of ________________________.

   g. The digit _____ is in the tenths place. It has a value of ________________________.

   h. The digit _____ is in the hundredths place. It has a value of ________________________.
3. Write each decimal as an equivalent fraction. Then, write each number in expanded form, using both decimal and fraction notation. The first one has been done for you.

<table>
<thead>
<tr>
<th>Decimal and Fraction Form</th>
<th>Expanded Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.43 = (15 \frac{43}{100})</td>
<td>((1 \times 10) + (5 \times 1) + (4 \times \frac{1}{10}) + (3 \times \frac{1}{100}))</td>
</tr>
<tr>
<td></td>
<td>(10 + 5 + \frac{4}{10} + \frac{3}{100})</td>
</tr>
<tr>
<td></td>
<td>((1 \times 10) + (5 \times 1) + (4 \times 0.1) + (3 \times 0.01))</td>
</tr>
<tr>
<td></td>
<td>(10 + 5 + 0.4 + 0.03)</td>
</tr>
<tr>
<td>21.4 = (___________)</td>
<td>(_________________)</td>
</tr>
<tr>
<td>38.09 = (_____________)</td>
<td>(____________________)</td>
</tr>
<tr>
<td>50.2 = (_____________)</td>
<td>(____________________)</td>
</tr>
<tr>
<td>301.07 = (_____________)</td>
<td>(____________________)</td>
</tr>
<tr>
<td>620.80 = (_____________)</td>
<td>(____________________)</td>
</tr>
<tr>
<td>800.08 = (_____________)</td>
<td>(____________________)</td>
</tr>
</tbody>
</table>
Name ___________________________ Date ___________________

1. Write a decimal number sentence to identify the total value of the place value disks.
   a. 3 tens 4 tenths 2 hundredths

   ______ + ______ + ______ = ______

   b. 4 hundreds 3 hundredths

   ______ + ______ = ______

2. Use the place value chart to answer the following questions. Express the value of the digit in unit form.

   \[
   \begin{array}{cccccc}
   \text{hundreds} & \text{tens} & \text{ones} & . & \text{tenths} & \text{hundredths} \\
   \hline
   8 & 2 & 7 & . & 6 & 4 \\
   \end{array}
   \]

   a. The digit _____ is in the hundreds place. It has a value of ____________________________.

   b. The digit _____ is in the tens place. It has a value of ____________________________.

   c. The digit _____ is in the tenths place. It has a value of _________________________

   d. The digit _____ is in the hundredths place. It has a value of _________________

   \[
   \begin{array}{cccccc}
   \text{hundreds} & \text{tens} & \text{ones} & . & \text{tenths} & \text{hundredths} \\
   \hline
   3 & 4 & 5 & . & 1 & 9 \\
   \end{array}
   \]

   e. The digit _____ is in the hundreds place. It has a value of ____________________________.

   f. The digit _____ is in the tens place. It has a value of ____________________________.

   g. The digit _____ is in the tenths place. It has a value of _________________________

   h. The digit _____ is in the hundredths place. It has a value of _______________________.

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3. Write each decimal as an equivalent fraction. Then, write each number in expanded form, using both decimal and fraction notation. The first one has been done for you.

<table>
<thead>
<tr>
<th>Decimal and Fraction Form</th>
<th>Expanded Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.23 = ( \frac{1423}{100} )</td>
<td>((1 \times 10) + (4 \times 1) + (2 \times \frac{1}{10}) + (3 \times \frac{1}{100}))</td>
</tr>
<tr>
<td></td>
<td>(10 + 4 + 0.2 + 0.03)</td>
</tr>
</tbody>
</table>

25.3 = ______

39.07 = ______

40.6 = ______

208.90 = ______

510.07 = ______

900.09 = ______
Lesson 7: Model mixed numbers with units of hundreds, tens, ones, tenths, and hundredths in expanded form and on the place value chart.

<table>
<thead>
<tr>
<th>hundreds</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>tenths</td>
<td>.</td>
</tr>
<tr>
<td>ones</td>
<td></td>
</tr>
<tr>
<td>tens</td>
<td></td>
</tr>
<tr>
<td>hundreds</td>
<td></td>
</tr>
</tbody>
</table>

place value chart
Lesson 8: Use understanding of fraction equivalence to investigate decimal numbers on the place value chart expressed in different units.

1. Use the area model to represent $\frac{250}{100}$. Complete the number sentence.
   a. $\frac{250}{100} = \underline{\text{tenths}} = \underline{\text{ones}} \underline{\text{tenths}} = \underline{.\underline{\text{.}}}$

   b. In the space below, explain how you determined your answer to part (a).

2. Draw place value disks to represent the following decompositions:
   - 2 ones = ______ tenths
   - 2 tenths = ______ hundredths
   - 1 one 3 tenths = ____ tenths
   - 2 tenths 3 hundredths = ____ hundredths
3. Decompose the units to represent each number as tenths.
   a. $1 = \text{____ tenths}$
   b. $2 = \text{____ tenths}$
   c. $1.7 = \text{_____ tenths}$
   d. $2.9 = \text{_____ tenths}$
   e. $10.7 = \text{_____ tenths}$
   f. $20.9 = \text{_____ tenths}$

4. Decompose the units to represent each number as hundredths.
   a. $1 = \text{_____ hundredths}$
   b. $2 = \text{_____ hundredths}$
   c. $1.7 = \text{_____ hundredths}$
   d. $2.9 = \text{_____ hundredths}$
   e. $10.7 = \text{_____ hundredths}$
   f. $20.9 = \text{_____ hundredths}$

5. Complete the chart. The first one has been done for you.

<table>
<thead>
<tr>
<th>Decimal</th>
<th>Mixed Number</th>
<th>Tenths</th>
<th>Hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>$2\frac{1}{10}$</td>
<td>$21 \text{ tenths}$</td>
<td>$210 \text{ hundredths}$</td>
</tr>
<tr>
<td>4.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 8 Homework

Name ___________________________ Date ____________________

1. Use the area model to represent $\frac{220}{100}$. Complete the number sentence.
   a. $\frac{220}{100} = _____$ tenths = _____ ones _____ tenths = ___.____

   ![Area Model Diagram]

   b. In the space below, explain how you determined your answer to part (a).

2. Draw place value disks to represent the following decompositions:

   3 ones = _______ tenths
   
   3 tenths = _______ hundredths

   
<table>
<thead>
<tr>
<th>ones</th>
<th>.</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
   
   2 ones 3 tenths = _____ tenths
   
   3 tenths 3 hundredths = _____ hundredths

   
<table>
<thead>
<tr>
<th>ones</th>
<th>.</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lesson 8: Use understanding of fraction equivalence to investigate decimal numbers on the place value chart expressed in different units.

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3. Decompose the units to represent each number as tenths.
   a. 1 = _____ tenths
   b. 2 = _____ tenths
   c. 1.3 = _____ tenths
   d. 2.6 = _____ tenths
   e. 10.3 = _____ tenths
   f. 20.6 = _____ tenths

4. Decompose the units to represent each number as hundredths.
   a. 1 = _____ hundredths
   b. 2 = _____ hundredths
   c. 1.3 = _____ hundredths
   d. 2.6 = _____ hundredths
   e. 10.3 = _____ hundredths
   f. 20.6 = _____ hundredths

5. Complete the chart. The first one has been done for you.

<table>
<thead>
<tr>
<th>Decimal</th>
<th>Mixed Number</th>
<th>Tenths</th>
<th>Hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>4 $\frac{1}{10}$</td>
<td>41 tenths $\frac{41}{10}$</td>
<td>410 hundredths $\frac{410}{100}$</td>
</tr>
<tr>
<td>5.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 8: Use understanding of fraction equivalence to investigate decimal numbers on the place value chart expressed in different units.

<table>
<thead>
<tr>
<th>Tens</th>
<th>Ones</th>
<th>.</th>
<th>Tenths</th>
<th>Hundredths</th>
</tr>
</thead>
</table>

area model and place value chart
1. Express the lengths of the shaded parts in decimal form. Write a sentence that compares the two lengths. Use the expression shorter than or longer than in your sentence.

   a.  
   
   b. 

   c. List all four lengths from least to greatest.

2. a. Examine the mass of each item as shown below on the 1-kilogram scales. Put an X over the items that are heavier than the avocado.
b. Express the mass of each item on the place value chart.

**Mass of Fruit (kilograms)**

<table>
<thead>
<tr>
<th>Fruit</th>
<th>ones</th>
<th>.</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>avocado</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>apple</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bananas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>grapes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

c. Complete the statements below using the words **heavier than** or **lighter than** in your statements.

The avocado is _____________ the apple.

The bunch of bananas is _____________ the bunch of grapes.

3. Record the volume of water in each graduated cylinder on the place value chart below.

**Volume of Water (liters)**

<table>
<thead>
<tr>
<th>Cylinder</th>
<th>ones</th>
<th>.</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Compare the values using >, <, or =.

a. 0.9 L ____ 0.6 L
b. 0.48 L ____ 0.6 L
c. 0.3 L ____ 0.19 L
d. Write the volume of water in each graduated cylinder in order from least to greatest.
1. Express the lengths of the shaded parts in decimal form. Write a sentence that compares the two lengths. Use the expression *shorter than* or *longer than* in your sentence.

   a. 
   ![Diagram]

   b. 
   ![Diagram]

   c. List all four lengths from least to greatest.
2. a. Examine the mass of each item as shown below on the 1-kilogram scales. Put an X over the items that are heavier than the volleyball

![Scales with masses](image)

<table>
<thead>
<tr>
<th>Mass of Sport Balls (kilograms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.15 kg</td>
</tr>
</tbody>
</table>

b. Express the mass of each item on the place value chart.

<table>
<thead>
<tr>
<th>Mass of Sport Balls (kilograms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.15 kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sport Balls</th>
<th>ones</th>
<th>.</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>baseball</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>volleyball</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>basketball</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>soccer ball</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

c. Complete the statements below using the words *heavier than* or *lighter than* in your statements.

The soccer ball is __________ the baseball.

The volleyball is __________ the basketball.
3. Record the volume of water in each graduated cylinder on the place value chart below.

<table>
<thead>
<tr>
<th>Cylinder</th>
<th>ones</th>
<th>.</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Compare the values using >, <, or =.

a. 0.4 L ____ 0.2 L

b. 0.62 L ____ 0.7 L

c. 0.2 L ____ 0.28 L

d. Write the volume of water in each graduated cylinder in order from least to greatest.
Lesson 9: Use the place value chart and metric measurement to compare decimals and answer comparison questions.

### Mass of Rice Bags (kilograms)

<table>
<thead>
<tr>
<th>Rice Bag</th>
<th>ones</th>
<th>.</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Volume of Liquid (liters)

<table>
<thead>
<tr>
<th>Cylinder</th>
<th>ones</th>
<th>.</th>
<th>tenths</th>
<th>hundredths</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 10: Use area models and the number line to compare decimal numbers, and record comparisons using <, >, and =.

1. Shade the area models below, decomposing tenths as needed, to represent the pairs of decimal numbers. Fill in the blank with <, >, or = to compare the decimal numbers.

   a. 0.23 ________ 0.4
   b. 0.6 ________ 0.38
   c. 0.09 ________ 0.9
   d. 0.70 ________ 0.7

2. Locate and label the points for each of the decimal numbers on the number line. Fill in the blank with <, >, or = to compare the decimal numbers.

   a. 10.03 ________ 10.3
   b. 12.68 ________ 12.8
3. Use the symbols $<$, $>$, or $=$ to compare.
   
   a. $3.42 \quad \_ \_ \_ \_ \quad 3.75$
   
   b. $4.21 \quad \_ \_ \_ \_ \quad 4.12$
   
   c. $2.15 \quad \_ \_ \_ \_ \quad 3.15$
   
   d. $4.04 \quad \_ \_ \_ \_ \quad 6.02$
   
   e. $12.7 \quad \_ \_ \_ \_ \quad 12.70$
   
   f. $1.9 \quad \_ \_ \_ \_ \quad 1.21$

4. Use the symbols $<$, $>$, or $=$ to compare. Use pictures as needed to solve.
   
   a. $23 \text{ tenths} \quad \_ \_ \_ \_ \quad 2.3$
   
   b. $1.04 \quad \_ \_ \_ \_ \quad 1 \text{ one and 4 tenths}$
   
   c. $6.07 \quad \_ \_ \_ \_ \quad \frac{7}{10}$
   
   d. $0.45 \quad \_ \_ \_ \_ \quad \frac{45}{10}$
   
   e. $\frac{127}{100} \quad \_ \_ \_ \_ \quad 1.72$
   
   f. $6 \text{ tenths} \quad \_ \_ \_ \_ \quad 66 \text{ hundredths}
1. Shade the parts of the area models below, decomposing tenths as needed, to represent the pairs of decimal numbers. Fill in the blank with <, >, or = to compare the decimal numbers.
   a. \(0.19 \quad \square \quad 0.3\)
   b. \(0.6 \quad \square \quad 0.06\)
   c. \(1.8 \quad \square \quad 1.53\)
   d. \(0.38 \quad \square \quad 0.7\)

2. Locate and label the points for each of the decimal numbers on the number line. Fill in the blank with <, >, or = to compare the decimal numbers.
   a. \(7.2 \quad \square \quad 7.02\)
   b. \(18.19 \quad \square \quad 18.3\)
3. Use the symbols $<$, $>$, or $=$ to compare.
   a. $2.68 \underline{\hspace{1cm}} 2.54$
   b. $6.37 \underline{\hspace{1cm}} 6.73$
   c. $9.28 \underline{\hspace{1cm}} 7.28$
   d. $3.02 \underline{\hspace{1cm}} 3.2$
   e. $13.1 \underline{\hspace{1cm}} 13.10$
   f. $5.8 \underline{\hspace{1cm}} 5.92$

4. Use the symbols $<$, $>$, or $=$ to compare. Use pictures as needed to solve.
   a. $57 \text{ tenths} \underline{\hspace{1cm}} 5.7$
   b. $6.2 \underline{\hspace{1cm}} 6 \text{ ones and 2 hundredths}$
   c. $33 \text{ tenths} \underline{\hspace{1cm}} 33 \text{ hundredths}$
   d. $8.39 \underline{\hspace{1cm}} 8 \frac{39}{10}$
   e. $\frac{236}{100} \underline{\hspace{1cm}} 2.36$
   f. $3 \text{ tenths} \underline{\hspace{1cm}} 22 \text{ hundredths}$
Lesson 10: Use area models and the number line to compare decimal numbers, and record comparisons using <, >, and =.

comparing with area models
Lesson 11 Problem Set

1. Plot the following points on the number line.
   
   a. 0.2, \( \frac{1}{10} \), 0.33, \( \frac{12}{100} \), 0.21, \( \frac{32}{100} \)

   
   b. 3.62, 3.7, \( \frac{85}{100} \), \( \frac{38}{100} \), \( \frac{364}{100} \)

   
   c. 6\( \frac{3}{10} \), 6.31, \( \frac{628}{100} \), \( \frac{62}{10} \), 6.43, 6.40
2. Arrange the following numbers in order from greatest to least using decimal form. Use the > symbol between each number.

   a. \( \frac{27}{10}, 2.07, \frac{27}{100}, \frac{71}{100}, \frac{227}{100}, 2.72 \)

   b. \( 12 \frac{3}{10}, 13.2, \frac{134}{100}, 13.02, 12 \frac{20}{100} \)

   c. \( 7 \frac{34}{100}, 7 \frac{4}{10}, 7 \frac{3}{10}, \frac{750}{100}, 75, 7.2 \)

3. In the long jump event, Rhonda jumped 1.64 meters. Mary jumped 1 \( \frac{6}{10} \) meters. Kerri jumped \( \frac{94}{100} \) meter. Michelle jumped 1.06 meters. Who jumped the farthest?

4. In December, 2 \( \frac{3}{10} \) feet of snow fell. In January, 2.14 feet of snow fell. In February, 2 \( \frac{19}{100} \) feet of snow fell, and in March, 1 \( \frac{1}{10} \) feet of snow fell. During which month did it snow the most? During which month did it snow the least?
Name ___________________________________________ Date ______________________

1. Plot the following points on the number line using decimal form.
   a. $0.6$, $\frac{5}{10}$, $0.76$, $\frac{79}{100}$, $0.53$, $\frac{67}{100}$

   ![Number Line](image1)

   b. 8 ones and 15 hundredths, $\frac{832}{100}$, $8\frac{27}{100}$, $8.2$, $8.1$

   ![Number Line](image2)

   c. $13\frac{12}{100}$, $13\frac{130}{10}$, 13 ones and 3 tenths, $13.21$, $13\frac{3}{100}$

   ![Number Line](image3)
2. Arrange the following numbers in order from greatest to least using decimal form. Use the > symbol between each number.
   a. 4.03, 4 ones and 33 hundredths, $\frac{34}{100}$, 4 $\frac{43}{100}$, 4.31

b. $17 \frac{5}{10}$, 17.55, $\frac{157}{10}$, 17 ones and 5 hundredths, 15.71, $15 \frac{75}{100}$

c. 8 ones and 19 hundredths, $9 \frac{8}{10}$, $8 \frac{809}{100}$, 8.9, $8 \frac{1}{10}$

3. In a paper airplane contest, Matt’s airplane flew 9.14 meters. Jenna’s airplane flew $9 \frac{1}{10}$ meters. Ben’s airplane flew $\frac{904}{100}$ meters. Leah’s airplane flew 9.1 meters. Whose airplane flew the farthest?

4. Becky drank $\frac{41}{100}$ liters of water on Monday, 1.14 liters on Tuesday, 1.04 liters on Wednesday, $\frac{11}{10}$ liters on Thursday, and $\frac{40}{100}$ liters on Friday. Which day did Becky drink the most? Which day did Becky drink the least?
Lesson 12 Problem Set

1. Complete the number sentence by expressing each part using hundredths. Model using the place value chart, as shown in part (a).

   a. 1 tenth + 5 hundredths = ______ hundredths

   b. 2 tenths + 1 hundredth = ______ hundredths

   c. 1 tenth + 12 hundredths = ______ hundredths

2. Solve by converting all addends to hundredths before solving.

   a. 1 tenth + 3 hundredths = _____ hundredths + 3 hundredths = _____ hundredths

   b. 5 tenths + 12 hundredths = _____ hundredths + _____ hundredths = _____ hundredths

   c. 7 tenths + 27 hundredths = _____ hundredths + _____ hundredths = _____ hundredths

   d. 37 hundredths + 7 tenths = _____ hundredths + _____ hundredths = _____ hundredths
Lesson 12 Problem Set

3. Find the sum. Convert tenths to hundredths as needed. Write your answer as a decimal.
   a. \( \frac{2}{10} + \frac{8}{100} \)
   b. \( \frac{13}{100} + \frac{4}{10} \)
   c. \( \frac{6}{10} + \frac{39}{100} \)
   d. \( \frac{70}{100} + \frac{3}{10} \)

4. Solve. Write your answer as a decimal.
   a. \( \frac{9}{10} + \frac{42}{100} \)
   b. \( \frac{70}{100} + \frac{5}{10} \)
   c. \( \frac{68}{100} + \frac{8}{10} \)
   d. \( \frac{7}{10} + \frac{87}{1000} \)

5. Beaker A has \( \frac{63}{100} \) liter of iodine. It is filled the rest of the way with water up to 1 liter. Beaker B has \( \frac{4}{10} \) liter of iodine. It is filled the rest of the way with water up to 1 liter. If both beakers are emptied into a large beaker, how much iodine does the large beaker contain?
Lesson 12 Homework

1. Complete the number sentence by expressing each part using hundredths. Model using the place value chart, as shown in part (a).

   a. 1 tenth + 8 hundredths = _____ hundredths

   b. 2 tenths + 3 hundredths = _____ hundredths

   c. 1 tenth + 14 hundredths = _____ hundredths

2. Solve by converting all addends to hundredths before solving.

   a. 1 tenth + 2 hundredths = _____ hundredths + 2 hundredths = _____ hundredths

   b. 4 tenths + 11 hundredths = _____ hundredths + _____ hundredths = _____ hundredths

   c. 8 tenths + 25 hundredths = _____ hundredths + _____ hundredths = _____ hundredths

   d. 43 hundredths + 6 tenths = _____ hundredths + _____ hundredths = _____ hundredths
Lesson 12: Apply understanding of fraction equivalence to add tenths and hundredths.

3. Find the sum. Convert tenths to hundredths as needed. Write your answer as a decimal.
   
a. \[ \frac{3}{10} + \frac{7}{100} \]
   
b. \[ \frac{16}{100} + \frac{5}{10} \]
   
c. \[ \frac{5}{10} + \frac{40}{100} \]
   
d. \[ \frac{20}{100} + \frac{8}{10} \]

4. Solve. Write your answer as a decimal.
   
a. \[ \frac{5}{10} + \frac{53}{100} \]
   
b. \[ \frac{27}{100} + \frac{8}{10} \]
   
c. \[ \frac{4}{10} + \frac{78}{100} \]
   
d. \[ \frac{98}{100} + \frac{7}{10} \]

5. Cameron measured \( \frac{65}{100} \) inch of rainwater on the first day of April. On the second day of April, he measured \( \frac{83}{100} \) inch of rainwater. How many total inches of rainwater did Cameron measure on the first two days of April?
Lesson 12: Apply understanding of fraction equivalence to add tenths and hundredths.
Lesson 13: Add decimal numbers by converting to fraction form.
3. Solve by rewriting the number sentence in fraction form. After solving, rewrite the complete number sentence in decimal form.

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>a. $6.4 + 5.3$</td>
<td>b. $6.62 + 2.98$</td>
</tr>
<tr>
<td>c. $2.1 + 0.94$</td>
<td>d. $2.1 + 5.94$</td>
</tr>
<tr>
<td>e. $5.7 + 4.92$</td>
<td>f. $5.68 + 4.9$</td>
</tr>
<tr>
<td>g. $4.8 + 3.27$</td>
<td>h. $17.6 + 3.59$</td>
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Lesson 13: Add decimal numbers by converting to fraction form.

1. Solve. Convert tenths to hundredths before finding the sum. Rewrite the complete number sentence in decimal form. Problems 1(a) and 1(b) are partially completed for you.

   a. \( \frac{5}{10} + \frac{7}{100} = \frac{52}{100} + \frac{7}{100} = \ \_\_\_\_\_\_\_

   \ 5.2 + 0.07 = \_\_\_\_\_\_\_

   b. \( \frac{5}{10} + \frac{3}{100} = \frac{20}{100} + \frac{7}{100} = \ \_\_\_\_\_\_\_

2. Solve. Then, rewrite the complete number sentence in decimal form.

   a. \( \frac{49}{10} + \frac{510}{100} \)

   b. \( \frac{7}{10} + \frac{265}{100} \)

   c. \( \frac{73}{10} + \frac{87}{100} \)

   d. \( \frac{48}{100} + \frac{8}{10} \)
3. Solve by rewriting the number sentence in fraction form. After solving, rewrite the complete number sentence in decimal form.

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<table>
<thead>
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<tbody>
<tr>
<td>a. 2.1 + 0.87 = 2 + 1/10 + 87/100</td>
<td>b. 7.2 + 2.67</td>
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<tr>
<td>c. 7.3 + 1.8</td>
<td>d. 7.3 + 1.86</td>
</tr>
<tr>
<td>e. 6.07 + 3.93</td>
<td>f. 6.87 + 3.9</td>
</tr>
<tr>
<td>g. 8.6 + 4.67</td>
<td>h. 18.62 + 14.7</td>
</tr>
</tbody>
</table>
Lesson 14: Solve word problems involving the addition of measurements in decimal form.

1. Barrel A contains 2.7 liters of water. Barrel B contains 3.09 liters of water. Together, how much water do the two barrels contain?

2. Alissa ran a distance of 15.8 kilometers one week and 17.34 kilometers the following week. How far did she run in the two weeks?
3. An apple orchard sold 140.5 kilograms of apples in the morning and 15.85 kilograms more apples in the afternoon than in the morning. How many total kilograms of apples were sold that day?

4. A team of three ran a relay race. The final runner’s time was the fastest, measuring 29.2 seconds. The middle runner’s time was 1.89 seconds slower than the final runner’s. The starting runner’s time was 0.9 seconds slower than the middle runner’s. What was the team’s total time for the race?
Lesson 14 Homework

Name ____________________________ Date ________________

1. The snowfall in Year 1 was 2.03 meters. The snowfall in Year 2 was 1.6 meters. How many total meters of snow fell in Years 1 and 2?

2. A deli sliced 22.6 kilograms of roast beef one week and 13.54 kilograms the next. How many total kilograms of roast beef did the deli slice in the two weeks?

Lesson 14: Solve word problems involving the addition of measurements in decimal form.
3. The school cafeteria served 125.6 liters of milk on Monday and 5.34 more liters of milk on Tuesday than on Monday. How many total liters of milk were served on Monday and Tuesday?

4. Max, Maria, and Armen were a team in a relay race. Max ran his part in 17.3 seconds. Maria was 0.7 seconds slower than Max. Armen was 1.5 seconds slower than Maria. What was the total time for the team?
Lesson 15: Express money amounts given in various forms as decimal numbers.

Name __________________________ Date ________________

1. 100 pennies = $___.______
   100¢ = ____ dollar

2. 1 penny = $___.______
   1¢ = ____ dollar

3. 6 pennies = $___.______
   6¢ = ____ dollar

4. 10 pennies = $___.______
   10¢ = ____ dollar

5. 26 pennies = $___.______
   26¢ = ____ dollar

6. 10 dimes = $___.______
   100¢ = ____ dollar

7. 1 dime = $___.______
   10¢ = ____ dollar

8. 3 dimes = $___.______
   30¢ = ____ dollar

9. 5 dimes = $___.______
   50¢ = ____ dollar

10. 6 dimes = $___.______
    60¢ = ____ dollar

11. 4 quarters = $___.______
    100¢ = ____ dollar

12. 1 quarter = $___.______
    25¢ = ____ dollar

13. 2 quarters = $___.______
    50¢ = ____ dollar

14. 3 quarters = $___.______
    75¢ = ____ dollar
Solve. Give the total amount of money in fraction and decimal form.

15. 3 dimes and 8 pennies

16. 8 dimes and 23 pennies

17. 3 quarters 3 dimes and 5 pennies

18. 236 cents is what fraction of a dollar?

Solve. Express the answer as a decimal.

19. 2 dollars 17 pennies + 4 dollars 2 quarters

20. 3 dollars 8 dimes + 1 dollar 2 quarters 5 pennies

21. 9 dollars 9 dimes + 4 dollars 3 quarters 16 pennies
Lesson 15 Homework

Name ___________________________ Date __________________

1. 100 pennies = $___.____
   100¢ = $$\frac{100}{100}$$ dollar

2. 1 penny = $___.____
   1¢ = $$\frac{100}{100}$$ dollar

3. 3 pennies = $___.____
   3¢ = $$\frac{300}{100}$$ dollar

4. 20 pennies = $___.____
   20¢ = $$\frac{200}{100}$$ dollar

5. 37 pennies = $___.____
   37¢ = $$\frac{3700}{100}$$ dollar

6. 10 dimes = $___.____
   100¢ = $$\frac{1000}{10}$$ dollar

7. 2 dimes = $___.____
   20¢ = $$\frac{200}{10}$$ dollar

8. 4 dimes = $___.____
   40¢ = $$\frac{400}{10}$$ dollar

9. 6 dimes = $___.____
   60¢ = $$\frac{600}{10}$$ dollar

10. 9 dimes = $___.____
    90¢ = $$\frac{900}{10}$$ dollar

11. 3 quarters = $___.____
    75¢ = $$\frac{7500}{100}$$ dollar

12. 2 quarters = $___.____
    50¢ = $$\frac{5000}{100}$$ dollar

13. 4 quarters = $___.____
    100¢ = $$\frac{10000}{100}$$ dollar

14. 1 quarter = $___.____
    25¢ = $$\frac{2500}{100}$$ dollar

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Lesson 15: Express money amounts given in various forms as decimal numbers.
Lesson 15 Homework

4-6

Solve. Give the total amount of money in fraction and decimal form.

15. 5 dimes and 8 pennies

16. 3 quarters and 13 pennies

17. 3 quarters 7 dimes and 16 pennies

18. 187 cents is what fraction of a dollar?

Solve. Express the answer in decimal form.

19. 1 dollar 2 dimes 13 pennies + 2 dollars 3 quarters

20. 2 dollars 6 dimes + 2 dollars 2 quarters 16 pennies

21. 8 dollars 8 dimes + 7 dollars 1 quarter 8 dimes
Lesson 16 Problem Set

Name ___________________________  Date _________________

Use the RDW process to solve. Write your answer as a decimal.

1. Miguel has 1 dollar bill, 2 dimes, and 7 pennies. John has 2 dollar bills, 3 quarters, and 9 pennies. How much money do the two boys have in all?

2. Suilin needs 7 dollars 13 cents to buy a book. In her wallet, she finds 3 dollar bills, 4 dimes, and 14 pennies. How much more money does Suilin need to buy the book?

3. Vanessa has 6 dimes and 2 pennies. Joachim has 1 dollar, 3 dimes, and 5 pennies. Jimmy has 5 dollars and 7 pennies. They want to put their money together to buy a game that costs $8.00. Do they have enough money to buy the game? If not, how much more money do they need?
4. A pen costs $2.29. A calculator costs 3 times as much as a pen. How much do a pen and a calculator cost together?

5. Krista has 7 dollars and 32 cents. Malory has 2 dollars and 4 cents. How much money does Krista need to give Malory so that each of them has the same amount of money?
Lesson 16 Homework

Name ____________________________ Date __________________

Use the RDW process to solve. Write your answer as a decimal.

1. Maria has 2 dollars, 3 dimes, and 4 pennies. Lisa has 1 dollar and 5 quarters. How much money do the two girls have in all?

2. Meiling needs 5 dollars 35 cents to buy a ticket to a show. In her wallet, she finds 2 dollar bills, 11 dimes, and 5 pennies. How much more money does Meiling need to buy the ticket?

3. Joe has 5 dimes and 4 pennies. Jamal has 2 dollars, 4 dimes, and 5 pennies. Jimmy has 6 dollars and 4 dimes. They want to put their money together to buy a book that costs $10.00. Do they have enough? If not, how much more do they need?

5. Carlos has 8 dollars and 48 cents. Alissa has 4 dollars and 14 cents. How much money does Carlos need to give Alissa so that each of them has the same amount of money?
Cut Out Packet
Lesson 11: Compare and order mixed numbers in various forms.

decimal number flash cards