1. The top box shows the product of the two middle numbers, and the bottom box shows the sum of the two middle numbers. Fill in the missing numbers.

\[
\begin{array}{c}
\text{a} & 4 \\
16 & 0.25 \\
\end{array}
\quad
\begin{array}{c}
\text{b} & 7 \\
0.25 & \\
\end{array}
\quad
\begin{array}{c}
\text{c} & 6 \\
0.75 & \\
\end{array}
\quad
\begin{array}{c}
\text{d} & 2.25 \\
0.75 & \\
\end{array}
\]

2. Find the product.

\[
\begin{align*}
\text{a} & \quad \frac{1}{5} \text{ of } 40 = \\
\text{b} & \quad \frac{1}{3} \text{ of } 21 = \\
\text{c} & \quad \frac{3}{5} \text{ of } 40 = \\
\text{d} & \quad \frac{2}{3} \text{ of } 21 = \\
\text{e} & \quad \frac{1}{6} \text{ of } 24 = \\
\text{f} & \quad \frac{1}{12} \text{ of } 36 = \\
\text{g} & \quad \frac{4}{6} \text{ of } 24 = \\
\text{h} & \quad \frac{4}{12} \text{ of } 36 = \\
\end{align*}
\]

4. Tracy bought a dozen of her mother's favorite flowers for $9.00. How much did each flower cost? Show your thinking.

5. Gavin also bought a dozen flowers for his mother, but her favorite flowers cost $0.35 each. How much did Gavin spend? Show your thinking.

6. Xavier earns $12.50 for each lawn he mows. If he mowed 8 lawns last week, how much money did he earn? Show your work.

7. **Challenge** Randi and her sister made balloon animals and sold them for $0.50 each at a school carnival. They made $48.00. If Randi made twice as many balloon animals as her sister, how many balloon animals did each girl make? Show your work.
**Dante’s Decision** page 1 of 2

Dante wants to spend some of his allowance money, but he is having a hard time deciding what to buy. He loves baseball cards, packs of gum, and bouncy balls. Fill in the ratio tables and answer the questions to help Dante keep track of what he can buy.

1. Dante’s favorite packs of baseball cards cost $1.70 each. Fill in the table below to show the cost of different numbers of packs of baseball cards.

<table>
<thead>
<tr>
<th>Packs of Baseball Cards</th>
<th>1</th>
<th>2</th>
<th>4</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>15</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$1.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Dante’s favorite gum costs $0.60 a pack. Fill in the table below to show the cost of different numbers of packs of gum.

<table>
<thead>
<tr>
<th>Packs of Gum</th>
<th>1</th>
<th>2</th>
<th>5</th>
<th>9</th>
<th>10</th>
<th>19</th>
<th>20</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$0.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Bouncy balls come in packages that cost $3.15 each. Fill in the table below to show the cost of different numbers of packs of bouncy balls.

<table>
<thead>
<tr>
<th>Packs of Bouncy Balls</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>10</th>
<th>12</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$3.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Dante decided to spend only $20.00 of his allowance and save the rest for later.

   a. Can he buy 12 packs of baseball cards? Why or why not?

   b. Can he buy 30 packs of gum? Why or why not?

   c. How much of the $20.00 will he still have after he buys 5 packs of bouncy balls?

(continued on next page)
Dante's Decision page 2 of 2

5  Write the following decimals in base ten numerals.
   a  $3,000 + 60 + 0.4 + 0.002$
   b  One hundred seventeen and three-thousandths

6  Write the number names (words) for the following decimals.
   a  $300 + 0.10 + 0.004$
   b  $13.029$

7  Write the following decimals in expanded form.
   ex  $642.835$  $(6 \times 100) + (4 \times 10) + (2 \times 1) + (8 \times 0.1) + (3 \times 0.01) + (5 \times 0.001)$
   a  Four thousand fifty-three and two hundred sixty-nine thousandths
   b  $9,615.243$

8  Use $>$, $=$, or $<$ to compare each pair of decimals.
   $45.01 \quad 45.10 \quad 5.055 \quad 5.550 \quad 19.023 \quad 19.032 \quad 70.0 \quad 0.70$

9  **CHALLENGE** Abby is going to make tie-dyed T-shirts for her class to wear on a field trip. Each shirt costs $3.95 and the dye for each shirt costs $0.50. Abby also needs to buy two boxes of salt to add to the mix for $4.50 each. If she has collected $124.70, how many tie-dyed T-shirts can Abby make? Show your work.
Buildings in Blocktown page 1 of 2

Luke’s favorite hobby is to create buildings for his fictional community, Blocktown. Sometimes Luke imagines what interesting buildings would look like, and sometimes he copies pictures or actual buildings he sees. All the buildings he makes consist of rectangular prisms put together. To make his buildings, Luke uses small blocks that measure 1 by 1 by 1 unit, and each block costs $0.05 at the store. Answer the questions below to help Luke with his buildings.

1. Luke wants to make a building like the one shown.

   ![Building Diagram]

   a. What is the volume of the building (how many cubes will he need)?

   b. Find the cost to create this building.

2. Luke wants to make another building like the one shown.

   ![Building Diagram]

   a. What is the volume of the building?

   b. Find the cost to create this building.

(continued on next page)
Buildings in Blocktown page 2 of 2

3 Luke wants to make a 1-layer building like the one shown, where the building has only 1 floor and 4 openings in the middle for landscaping.

![Diagram of building]

a What is the volume of the actual building, not including the landscape areas?

b Find the cost to create this building.

4 Luke wants to make a building that has a volume of 24 cubic units for its base. He wondered what the volume would be for multiple layers. He also wondered how many layers he could make with a given volume. Fill in the ratio table below to help Luke with his questions.

<table>
<thead>
<tr>
<th>Volume</th>
<th>24</th>
<th>48</th>
<th>240</th>
<th>576</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

5 **CHALLENGE** How much will it cost Luke to make a 20-layer building, if the base volume is 24 cubic units?
**Better Buildings**

1 Luke’s mom surprised him with an additional 80 blocks to use in Blocktown.

   a If he makes a construction consisting of only rectangular prisms stuck together, and uses all 80, how could the building be made? Sketch the building and label the dimensions.

   b Show how you know the volume of the building is 80 cubic units. Record an equation.

2 Luke saved $5.45 from allowance.

   a What is the maximum number of blocks could he buy?

   b Assume Luke used all of his savings to buy new blocks. Draw a building he could add to Blocktown, using only the blocks from his recent purchase.