DIRECTIONS: Mark the diagrams with congruent angles so you can use AA Similarity.

1. What is the scale factor for the two triangles? 3:4 (or 4:3)
   \[ x = 24 \quad y = 16 \]

2. What is the scale factor for the two triangles? 3:4 (or 4:3)
   \[ x = 6 \quad y = 4 \]

3. What is the scale factor for the two triangles? 2:3 (or 3:2)
   \[ x = 9 \quad y = 6 \]

4. What is the scale factor for the two triangles? 3:4 (or 4:3)
   \[ x = 9 \quad y = 5 \]
DIRECTIONS: ABCD is a parallelogram. Look for triangles inside triangles so you can use AA Similarity. You will need to find a scale factor to solve for $x$ and $y$.

5. $x = 9 \quad y = \frac{27}{5} \text{ or } 5 \frac{2}{5} \text{ or } 5.4$

6. $x = 2 \quad y = 6$

DIRECTIONS: Complete the chart for each problem.

<table>
<thead>
<tr>
<th></th>
<th>AR</th>
<th>RT</th>
<th>AT</th>
<th>AN</th>
<th>NP</th>
<th>AP</th>
<th>RN</th>
<th>TP</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>6</td>
<td>4</td>
<td>10</td>
<td>9</td>
<td>6</td>
<td>15</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>12</td>
<td>8</td>
<td>20</td>
<td>18</td>
<td>12</td>
<td>30</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>18</td>
<td>27</td>
<td>13</td>
<td>26</td>
<td>39</td>
<td>12</td>
<td>36</td>
</tr>
</tbody>
</table>