Problem Solving: Patterns in the Coordinate Grid

The congruent triangles form a pattern on the coordinate grid. If the pattern continues, what are the ordered pairs for the vertices of the fourth triangle?

Look at the coordinates of the bottom-left vertex for each triangle.

Look at the coordinates of the top vertex for each triangle.

Look at the coordinates of the bottom-right vertex for each triangle.

For each vertex, the \( x \)-value is increased by 3 in each successive triangle. Thus the coordinates of the vertices for the fourth triangle are: \((10, 1), (11, 3), \) and \((12, 1)\).

**Use patterns in the coordinate grid to solve each problem.**

1. Record the coordinates of each vertex in the tables below:
   Bottom-left

<table>
<thead>
<tr>
<th>Triangle</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>( x )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( y )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Use with text pages 592–593.