Patterns, Equations, and Graphs Assignment

Tell whether the given equation has the ordered pair as a solution.

1. \( x = y + 6 \) \((3, -3)\)
2. \( y - 6 = 3x \) \((1, 9)\)
3. \( y - 2x = 3 \) \((5, 12)\)
4. \( y = 2x + 3 \) \((-3, -3)\)
5. \( y - 6x = 2 \) \((2, 13)\)
6. \( y = x - 2 \) \((2, 1)\)
7. \( x + 7 = y - 3 \) \((3, 12)\)
8. \( x - 8 = 3y \) \((11, 1)\)

Use a table, an equation, and a graph to represent each relationship.

9. Susy makes 3 bracelets per hour.
Patterns, Equations, and Graphs Assignment

10. Tina earns $2.5 for every hour babysitting.

11. Predict the next figure in each sequence.
   i.  
   ii.  
   iii.  
   iv.  

   [Diagram of four sequences of figures]
Tell whether the given equation has the ordered pair as a solution.

1. \(x = y + 6\) \((3, -3)\)

\[
x = y + 6 \\
3 = -3 + 6 \\
\则 = 3
\]

2. \(y - 6 = 3x\) \((1, 9)\)

\[
y - 6 = 3x \\
9 - 6 = 3(1) \\
3 = 3
\]

3. \(y - 2x = 3\) \((5, 12)\)

\[
y - 2x = 3 \\
12 - 2(5) = 3 \\
12 - 10 = 3 \\
2 = 3
\]

4. \(y = 2x + 3\) \((-3, -3)\)

\[
y = 2x + 3 \\
-3 = 2(-3) + 3 \\
-3 = -6 + 3 \\
-3 = -3
\]

5. \(y - 6x = 2\) \((2, 13)\)

\[
y - 6x = 2 \\
13 - 6(2) = 2 \\
13 - 12 = 2 \\
1 = 2
\]

6. \(y = x - 2\) \((2, 1)\)

\[
y = x - 2 \\
1 = 2 - 2 \\
1 ≠ 0
\]

7. \(x + 7 = y - 3\) \((3, 12)\)

\[
x + 7 = y - 3 \\
3 + 7 = 12 - 3 \\
10 ≠ 9
\]

8. \(x - 8 = 3y\) \((11, 1)\)

\[
x - 8 = 3y \\
11 - 8 = 3(1) \\
3 = 3
\]
Patterns, Equations, and Graphs Assignment

Use a table, an equation, and a graph to represent each relationship.

9. Susy makes 3 bracelets per hour.

Where: \( p = \) Total number of bracelets made
\( t = \) number of hours

\[
p = 3(t)
\]

<table>
<thead>
<tr>
<th>( t ) (hour)</th>
<th>( p ) (pcs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>8</td>
<td>24</td>
</tr>
</tbody>
</table>
10. Tina earns $2.5 for every hour babysitting.

\[ s = 2.5(t) \]

Where: 
\[ s = \text{Total salary} \]
\[ t = \text{number of hours} \]

<table>
<thead>
<tr>
<th>( t ) (hour)</th>
<th>( s ) ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>7.5</td>
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<td>10</td>
</tr>
<tr>
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<td>12.5</td>
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<td>15</td>
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<td>7</td>
<td>17.5</td>
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<td>8</td>
<td>20</td>
</tr>
</tbody>
</table>

Predict the next figure in each sequence.

11. i. ii. iii. iv.