### Identifying a Function

**Table of Values**

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

This relation represents a function because

This relation does NOT represent a function because

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>-4</td>
<td>10</td>
</tr>
<tr>
<td>-2</td>
<td>8</td>
</tr>
<tr>
<td>-4</td>
<td>6</td>
</tr>
</tbody>
</table>

**Ordered Pairs**

{(-3, 4), (-1, 3), (1, 2), (3, 1), (5, 0)}

This relation represents a function because

This relation does NOT represent a function because

{(5, 4), (6, 2), (6, -2), (4, -4), (7, 5)}

This relation does NOT represent a function because

**Graph**

This relation represents a function because

This relation does NOT represent a function because

**Mapping**

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>11</td>
</tr>
</tbody>
</table>

This relation represents a function because

This relation does NOT represent a function because

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

This relation does NOT represent a function because
Function/Not a Function

Directions: Analyze each relation and determine if it is a function or not a function. If you determine the relation is NOT a function, use a highlighter to show why.

1. \[
\begin{array}{cc}
-4 & 10 \\
0 & 9 \\
-4 & 8 \\
8 & 7 \\
\end{array}
\]

2. \[
\begin{array}{cc}
2 & 2 \\
4 & 4 \\
6 & 6 \\
8 & 8 \\
\end{array}
\]

3. \[
\begin{array}{cc}
-10 & -1 \\
-5 & 3 \\
0 & 7 \\
-5 & 11 \\
\end{array}
\]

4. \[
\begin{array}{cc}
5 & -5 \\
-5 & -5 \\
10 & -5 \\
15 & -5 \\
20 & -5 \\
\end{array}
\]

5. \[
\begin{array}{ccc}
x & -3 & 1 \\
y & 1 & 3 \\
\end{array}
\]

6. \[
\begin{array}{ccc}
x & -2 & 0 \\
y & 0 & 2 \\
\end{array}
\]

7. \{(-2, 4), (-1, 4), (0, 4), (1, 3), (5, 5)\}

8. \{(-3, -1), (-1, -3), (1, -3), (1, 3)\}

9. \{(-2, -2), (-1, -2), (1, 3), (2, 3)\}

10. \{(-2, 0), (2, 1), (-2, 4), (2, 3)\}

11. \[
\begin{array}{c}
\text{Function} \\
\text{Not a Function} \\
\end{array}
\]

12. \[
\begin{array}{c}
\text{Function} \\
\text{Not a Function} \\
\end{array}
\]

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Directions: Analyze each relation and determine if it is a function or not a function. If you determine the relation is NOT a function, use a highlighter to show why.

13. 14. 15. 16.

Function
  ☐

Function
  ☐

Function
  ☐

Function
  ☐

17. 18. 19. 20.

Function
  ☐

Function
  ☐

Function
  ☐

Function
  ☐

21. 22.

Function
  ☐

Function
  ☐

Function
  ☐

Function
  ☐