

FUNCTIONS:

	Definition	Yes	No																
Function	<p>No repeated x-values</p> <p>y-values can be repeated</p> <p>Passes Vertical Line Test</p>	<table border="1"> <tr><td>x</td><td>1</td><td>2</td><td>3</td></tr> <tr><td>y</td><td>4</td><td>4</td><td>5</td></tr> </table>	x	1	2	3	y	4	4	5	<table border="1"> <tr><td>x</td><td>1</td><td>1</td><td>2</td></tr> <tr><td>y</td><td>4</td><td>5</td><td>6</td></tr> </table>	x	1	1	2	y	4	5	6
x	1	2	3																
y	4	4	5																
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One-to-One (Injection)	<p>No repeated y-values</p> <p>x-values can be repeated</p> <p>Passes Horizontal Line Test</p>	<table border="1"> <tr><td>x</td><td>1</td><td>1</td><td>2</td></tr> <tr><td>y</td><td>4</td><td>5</td><td>6</td></tr> </table>	x	1	1	2	y	4	5	6	<table border="1"> <tr><td>x</td><td>1</td><td>2</td><td>3</td></tr> <tr><td>y</td><td>4</td><td>4</td><td>5</td></tr> </table>	x	1	2	3	y	4	4	5
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Onto (Surjection)	<p>All y-values have an x-value</p> <p>y-values can be repeated</p>	<table border="1"> <tr><td>x</td><td>1</td><td>2</td><td>3</td></tr> <tr><td>y</td><td>4</td><td>4</td><td>5</td></tr> </table>	x	1	2	3	y	4	4	5	<table border="1"> <tr><td>x</td><td>1</td><td>2</td><td></td></tr> <tr><td>y</td><td>4</td><td>4</td><td>5</td></tr> </table>	x	1	2		y	4	4	5
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Examples:

	Function?	One-to-One?	Onto?										
<table border="1"> <tr><td>x</td><td>1</td><td>2</td><td>3</td></tr> <tr><td>y</td><td>4</td><td>5</td><td>6</td></tr> </table>	x	1	2	3	y	4	5	6	Yes	Yes	Yes		
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x	1	2											
y	4	5	6										
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