

LESSON 20: Functions

Homework

Name _____ Date _____

Directions: Complete the function tables below.

<p>1. $y = 2x - 2$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Input (x-values)</th> <th style="width: 50%;">Output (y-values)</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">1</td><td></td></tr> <tr><td style="text-align: center;">2</td><td></td></tr> <tr><td style="text-align: center;">3</td><td></td></tr> <tr><td style="text-align: center;">4</td><td></td></tr> <tr><td style="text-align: center;">5</td><td></td></tr> <tr><td style="text-align: center;">6</td><td></td></tr> </tbody> </table>	Input (x-values)	Output (y-values)	1		2		3		4		5		6		<p>2. $y = 4x$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Input (x-values)</th> <th style="width: 50%;">Output (y-values)</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">-4</td><td></td></tr> <tr><td style="text-align: center;">-2</td><td></td></tr> <tr><td style="text-align: center;">0</td><td></td></tr> <tr><td style="text-align: center;">2</td><td></td></tr> <tr><td style="text-align: center;">4</td><td></td></tr> <tr><td style="text-align: center;">6</td><td></td></tr> </tbody> </table>	Input (x-values)	Output (y-values)	-4		-2		0		2		4		6	
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<p>3. $y = \frac{x}{2} + 2$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Input (x-values)</th> <th style="width: 50%;">Output (y-values)</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">2</td><td></td></tr> <tr><td style="text-align: center;">4</td><td></td></tr> <tr><td style="text-align: center;">6</td><td></td></tr> <tr><td style="text-align: center;">8</td><td></td></tr> <tr><td style="text-align: center;">10</td><td></td></tr> <tr><td style="text-align: center;">12</td><td></td></tr> </tbody> </table>	Input (x-values)	Output (y-values)	2		4		6		8		10		12		<p>4. $y = 2x + 5$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Input (x-values)</th> <th style="width: 50%;">Output (y-values)</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">3</td><td></td></tr> <tr><td style="text-align: center;">5</td><td></td></tr> <tr><td style="text-align: center;">7</td><td></td></tr> <tr><td style="text-align: center;">9</td><td></td></tr> <tr><td style="text-align: center;">11</td><td></td></tr> <tr><td style="text-align: center;">13</td><td></td></tr> </tbody> </table>	Input (x-values)	Output (y-values)	3		5		7		9		11		13	
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Directions: For Problems 5–8, determine from the table if this is a function and explain your answer.

<p>5. _____ _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Input (x-values)</th> <th style="width: 50%;">Output (y-values)</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">1</td><td style="text-align: center;">4</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">10</td></tr> <tr><td style="text-align: center;">5</td><td style="text-align: center;">16</td></tr> <tr><td style="text-align: center;">9</td><td style="text-align: center;">28</td></tr> <tr><td style="text-align: center;">10</td><td style="text-align: center;">31</td></tr> <tr><td style="text-align: center;">11</td><td style="text-align: center;">34</td></tr> </tbody> </table>	Input (x-values)	Output (y-values)	1	4	3	10	5	16	9	28	10	31	11	34	<p>6. _____ _____ _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Input (x-values)</th> <th style="width: 50%;">Output (y-values)</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">0</td><td style="text-align: center;">2</td></tr> <tr><td style="text-align: center;">1</td><td style="text-align: center;">4</td></tr> <tr><td style="text-align: center;">2</td><td style="text-align: center;">6</td></tr> <tr><td style="text-align: center;">2</td><td style="text-align: center;">8</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">10</td></tr> <tr><td style="text-align: center;">4</td><td style="text-align: center;">12</td></tr> </tbody> </table>	Input (x-values)	Output (y-values)	0	2	1	4	2	6	2	8	3	10	4	12
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7. _____
_____.

Input (x-values)	Output (y-values)
-6	-8
-5	-6
-4	-4
-3	-2
-2	0
-1	2

8. _____

_____.

Input (x-values)	Output (y-values)
-8	6
-4	4
-2	2
2	2
-4	-4
8	6

Directions: For Problems 9 and 10, write the equation that represents the function in the table.

9. _____

Input (x-values)	Output (y-values)
7	6.5
14	10
21	13.5
28	17
35	20.5
42	24

10. _____

Input (x-values)	Output (y-values)
-5	-1
-3	1
-1	3
1	5
3	7
5	9