

Name :

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HOMEWORK 5.2

Secondary Math II

<p style="font-size: 1.2em; font-weight: bold; margin: 0;">Turned in On Time</p> <p style="font-size: 0.8em; margin: 0;">(4 pts.)</p> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 10px auto;"></div>	0A. (2 pt.) Find the solution(s) for $x^2 - 10x + 20 = -5$.
	0B. (2 pt.) Find the solution(s) for $2(x-3)^2 = 8$

Review

<p>1. (1 pt.) If $f(x) = 2x^2 + 5$, then $f(3) =$</p> <p style="margin-top: 20px;">$f(3) = 23$</p>	<p>2. (1 pt.) If $f(x) = x^2 - 15$, and $f(x) = 1$, what is x?</p> <p style="margin-top: 20px;">$x = \pm 4$</p>	<p>3. (1 pt.) Find the vertex of $f(x) = x^2 - 2x + 5$. Write as an ordered pair.</p> <p style="margin-top: 20px;">(1, 4)</p>
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<p style="font-size: 1.2em; font-weight: bold; margin: 0;">Classroom Exercise #4</p> <p style="font-size: 0.8em; margin: 0;">(3 pts.)</p> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 10px auto;"></div>	<p>4A. (1 pt.) State the domain and range for the following: $\{(1,3), (2,5), (3,7), (4,9)\}$ Domain: Range:</p>
	<p>4B. (1 pt.) State the domain and range for the following: $\{(1,2), (-1,0), (0,3), (2,5), (-2,3)\}$ Domain: $\{-2, -1, 0, 1, 2\}$ Range:</p>
	<p>4C. (1 pt.) State the domain and range for the following: $\{(1,3), (2,3), (-1,3), (3,3), (4,3)\}$ Domain: Range: $\{3\}$</p>

For each of the given relations below, state the domain and range.

<p>5. (2 pts.)</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>x</td><td>-1</td><td>0</td><td>1</td><td>2</td><td>3</td></tr> <tr><td>y</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> </table>	x	-1	0	1	2	3	y	4	5	6	7	8	<p>6. (2 pts.)</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>x</td><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> <tr><td>y</td><td>1</td><td>3</td><td>5</td><td>7</td><td>9</td></tr> </table>	x	2	4	6	8	10	y	1	3	5	7	9
x	-1	0	1	2	3																				
y	4	5	6	7	8																				
x	2	4	6	8	10																				
y	1	3	5	7	9																				
<p>7. (2 pts.) $\{(1,2), (2,3), (-1,1), (3,2), (-2,1)\}$ Domain: $\{-2, -1, 1, 2, 3\}$ Range: $\{1, 2, 3\}$</p>	<p>8. (2 pts.) $\{(a,b), (b,c), (c,d), (d,e)\}$ Domain: Range: $\{b, c, d, e\}$</p>																								

Classroom Exercise #9

(3 pts.)



5A. (1 pt.) Write the following in interval notation.

$$\{x | x \geq 0\}$$

5B. (1 pt.) Write the following in interval notation.

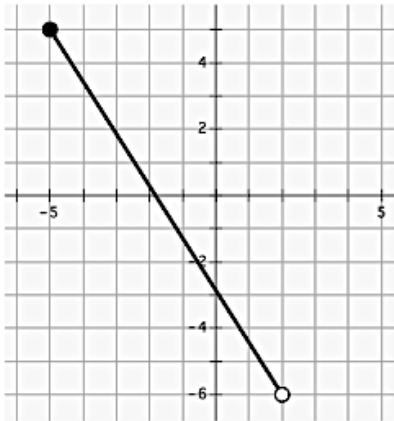
$$\{x | -4 < x \leq 5\} \quad (-4, 5)$$

5C. (1 pt.) Write the following in interval notation.

$$\{x | -\infty < x < \infty\}$$

For each of the given relations below, determine if the function is finite or infinite then state the domain and range. State in both set notation and interval notation (if infinite).

7. (2 pts.)



Infinite

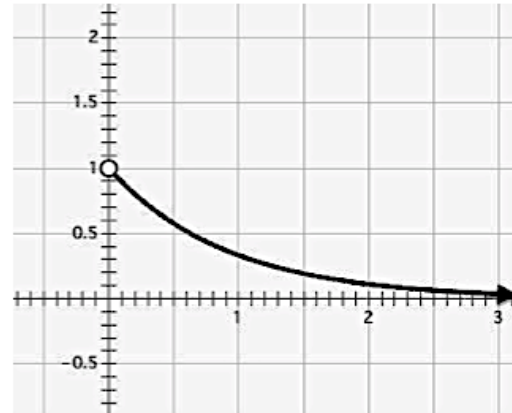
$$D: \{x | -5 \leq x < 2\}$$

$$R: \{y | -6 < y \leq 5\}$$

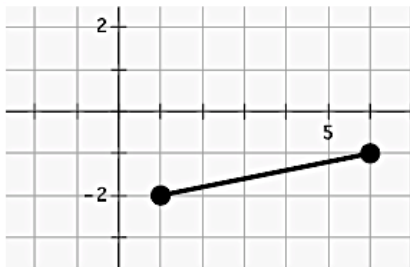
$$D: [-5, 2)$$

$$R: (-6, 5]$$

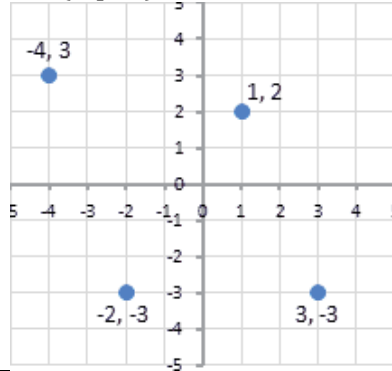
8. (2 pts.)



9. (2 pts.)



10. (2 pts.)

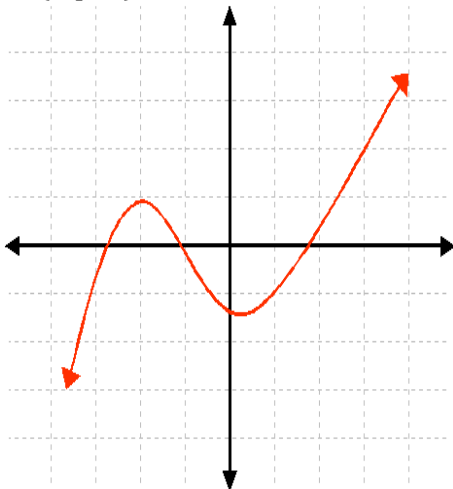


Finite

$$D: \{-4, -2, 1, 3\}$$

$$R: \{-3, 2, 3\}$$

11. (2 pts.)



Infinite

$$D: \{x | x \in \mathfrak{R}\}$$

$$R: \{y | y \in \mathfrak{R}\}$$

$$D: (-\infty, \infty)$$

$$R: (-\infty, \infty)$$

12. (2 pts.)

