

FUNCTIONS REVIEW

Name: _____

Tell whether or not each relation is a function. Then identify the domain and range.

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

Is it a function?

Domain:

Range:

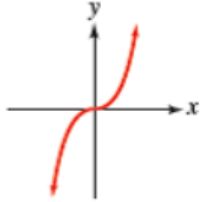
2. $\{(-1, -8), (0, 3), (-1, 4), (2, 5)\}$

Is it a function?

Domain:

Range:

3.

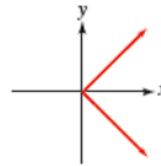


Is it a function?

Domain:

Range:

4.



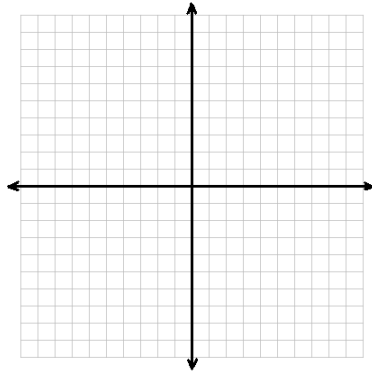
Is it a function?

Domain:

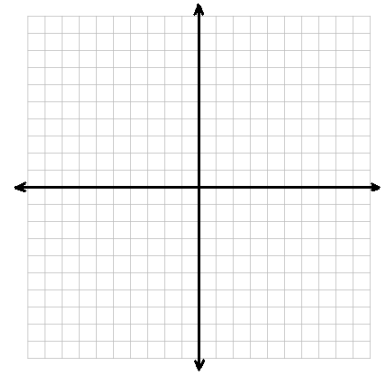
Range:

Graph the equation.

5. $f(x) = |x| + 3$



6. $f(x) = 2x^2 - 4$



Evaluate each function for $x = 2$ and $x = -7$.

7. $f(x) = 2x - 8$

8. $g(x) = -4x + 31$

Find the range for the function given the domain.

9. $f(x) = 3x^2 - 2$ domain: $\{-6, -3, 0, 3, 6\}$

10. $g(x) = -2x + 3$ domain: $\{-4, -1, 0, 3\}$


11. If $f(x) = 2x + 7$ and $g(x) = -4x - 1$, find $f(8) + g(-10)$


Write a function rule to represent each situation.

12. The volume remaining in a 243 ft^3 pile of gravel decreases by 0.2 ft^3 with each shovelful of gravel spread in a walkway.

13. Your total cost for hiring a garden designer is \$200 for an initial consultation plus \$45 for each hour the designer spends drawing plans.

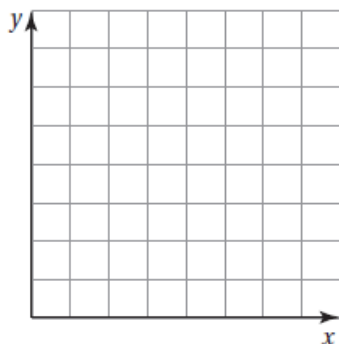
Identify the independent and dependent variables for each table representing. Then represent the relationship using words, an equation, and a graph. Be sure to label

#14	<u>Words</u>	<u>Equation</u>										
<p style="text-align: center;"><u>Graph</u></p> <p>Independent Variable:</p> <p>Dependent Variable:</p> <div style="text-align: center;">  </div>		<p><u>Paint in a Can</u></p> <table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th># of chairs painted</th> <th>Paint left (oz.)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>130</td> </tr> <tr> <td>1</td> <td>100</td> </tr> <tr> <td>2</td> <td>70</td> </tr> <tr> <td>3</td> <td>40</td> </tr> </tbody> </table>	# of chairs painted	Paint left (oz.)	0	130	1	100	2	70	3	40
# of chairs painted	Paint left (oz.)											
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#15	<u>Words</u>	<u>Equation</u>										
<p style="text-align: center;"><u>Graph</u></p> <p>Independent Variable:</p> <p>Dependent Variable:</p> <div style="text-align: center;">  </div>		<p><u>Cost of Going to a Game</u></p> <table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th># of snacks purchased</th> <th>Total cost</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>18</td> </tr> <tr> <td>1</td> <td>21</td> </tr> <tr> <td>2</td> <td>24</td> </tr> <tr> <td>3</td> <td>27</td> </tr> </tbody> </table>	# of snacks purchased	Total cost	0	18	1	21	2	24	3	27
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Graph the function. Is it continuous or discrete? EXPLAIN WHY!

16. Your cost c to buy w pounds of walnuts at \$6/lb is represented by $c = 6w$.



17. A truck originally held 24 chairs. You remove 2 chairs at a time. The number of chairs n remaining after you make t trips is represented by $n = 24 - 2t$.

