

## Unit 2: DOMAIN Assessment

Name \_\_\_\_\_ PER \_\_\_\_\_ DATE \_\_\_\_\_

2A	2B	2D	2F

*Computation*

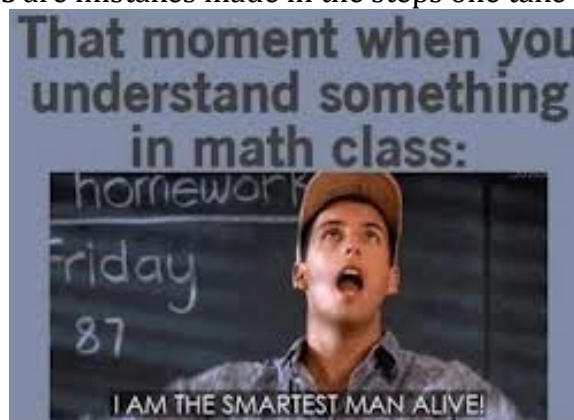
4	3	2	1
Response has no recall errors, <i>minimal</i> procedural errors* and no conceptual errors**	Response has no recall errors, minimal procedural errors and <i>minimal</i> conceptual errors	Response has no recall errors, but has several procedural errors <u>OR</u> several conceptual errors	Recall errors exist <u>OR</u> Steps taken are not related to problem <u>OR</u> Response left blank

*Written Responses*

4	3	2	1
Response is written in a complete sentence and uses appropriate academic vocab	Response is written in a complete sentence, and minimal errors exist in use of academic vocab	Response is not written in a complete sentence <u>OR</u> no academic vocab	Concept of response is not related to problem <u>OR</u> Response is left blank

\*Procedural errors are mistakes made in the math

\*\*Conceptual errors are mistakes made in the steps one take

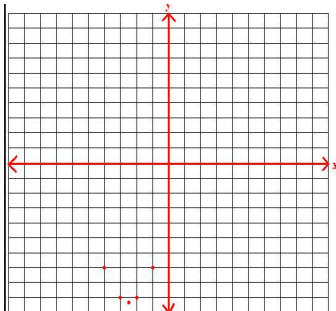


<b>BOX YOUR ANSWERS!!!</b>
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SCORES	LT 2A																
<p><b>Your predicted score:</b></p> <hr/>	<p>1. Indicate whether each relation is a function. Explain why or why not.</p> <p>a. (1, 2) (5, 5) (1, -6) (0, 9)</p>																
<p><b>Mr. Solis' score:</b></p> <hr/>	<hr/>																
	<p>b. <math>y^2 - 4x = 13</math></p> <hr/>																
	<p>C.</p> <div data-bbox="544 1234 917 1564" data-label="Figure"> <table border="1"> <caption>Smalltown Teens With Cell Phones</caption> <thead> <tr> <th>Age in Years</th> <th>Number of Teens</th> </tr> </thead> <tbody> <tr><td>13</td><td>229</td></tr> <tr><td>14</td><td>273</td></tr> <tr><td>15</td><td>341</td></tr> <tr><td>16</td><td>430</td></tr> <tr><td>17</td><td>590</td></tr> <tr><td>18</td><td>530</td></tr> <tr><td>19</td><td>642</td></tr> </tbody> </table> <p>Copyright © 2007 Mrs. Orosz's Math Classes, Inc. All Rights Reserved.  <a href="http://www.mathgoats.com">http://www.mathgoats.com</a></p> </div> <hr/>	Age in Years	Number of Teens	13	229	14	273	15	341	16	430	17	590	18	530	19	642
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13	229																
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SCORES	LT 2B
<p><b>Your predicted average score:</b></p> <hr/> <p><b>Mr. Solis' score:</b></p> <hr/>	<p>2. Find the domain of the following functions:</p> <p>a.) <math>f(x) = \frac{x^3 + 12}{\sqrt{3x - 3}}</math></p> <p>b.) <math>f(x) = \frac{15}{2x^2 + 5x - 3}</math></p> <p>c.) <math>f(x) = \frac{3x}{\sqrt{x^2 - 25}}</math></p>
<p><b>Your predicted average score:</b></p> <hr/> <p><b>Mr. Solis' score:</b></p> <hr/>	<p>3. Write a function whose domain is <math>\mathbf{R}</math> and explain why that is so.</p> <hr/> <hr/> <hr/>

SCORES	LT 2D
<b>Your predicted score:</b> <hr/>	4. Find $f \circ g \circ h$ if
<b>Mr. Solis' score:</b> <hr/> <hr/>	$f(x) = \frac{2-x}{x}$ $g(x) = 3x \text{ and}$ $h(x) = x^2$
	4. Using the same functions as above, find $f \circ f$ .
	5. If $F(x) = \sqrt{\frac{3x^2}{8x+2}}$ find $f(x)$ , $g(x)$ , and $h(x)$ such that $F(x) = f \circ g \circ h$ . Show all of your work!

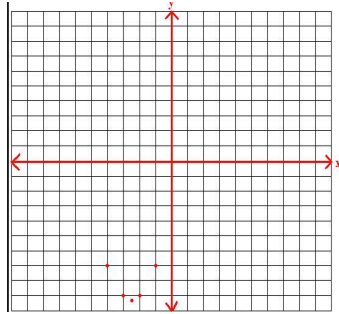
SCORES	LT 2F
<b>Your predicted score:</b> <hr/>	
<b>Mr. Solis' score:</b> <hr/>	$f(x) = \left\{ \begin{array}{ll} \frac{1}{x} & \text{for } x > 3 \\ -2x & \text{for } 0 \leq x \leq 3 \\ x^3 - 3 & \text{for } -2 \leq x < 0 \\  x  & \text{for } x < -2 \end{array} \right\}$
	<p>6. Evaluate the functions above at the given values.</p> <p>a) <math>f(2)</math>                      b.) <math>f(-6)</math>                      c.) <math>f(-2)</math></p> <p>7. Graph each of the following functions by listing the transformations <i>in order</i> then transform the parent graph and show the final sketch on the coordinate plane.</p> <p><math>f(x) = -x^2 - 2</math></p> <p>Parent function: _____</p> <p>Transformations in ORDER:</p> 

8. Graph each of the following functions by listing the transformations *in order* then transform the parent graph and show the final sketch on the coordinate plane.

$$f(x) = |x - 2| + 4$$

Parent function: \_\_\_\_\_

Transformations in ORDER:



9. Write a function for the descriptions of the transformations below:

a.) Square Root: horizontal shift 2 units to the right.

\_\_\_\_\_

b.) Cubic: horizontal shift 3 units to the left and 1 unit down.

\_\_\_\_\_