1. Multiple choice (circle the correct answer):

* The relation that is also a function is:

1.  b)  c)  d) 

* Given , then:

1.  b)  c)  d) 

* The range that best corresponds to  is:

a)  b)  c)  d) 

* If , then the proper equation of its inverse is:

1.  b)  c)  d) 

* For the graph of , identify the transformation that would ***not*** be applied toto obtain the graph of :

1. Vertical stretch by a factor of 2 b) Vertical reflection

c) Vertical translation up 3 units d) Horizontal compression by a factor of ½

* The range of  is:

1.  b)  c)  d) 
2. Determine if each relation represents a function, then state its domain and range:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| -1  1  3  5  6  7  8 | |  |  | | --- | --- | | ***x*** | ***y*** | | 0 | - 4 | | 1 | - 4 | | 2 | 8 | | 3 | 1 | |
| Function? (yes / no) | Function? (yes / no) |
| D: | D: |
| R: | R: |

1. Consider the parent function . Write the equation of the function after the following

transformations: a horizontal reflection, a vertical stretch by a factor of 2, and a vertical translation 4 units up. Use the notation for the new function.

1. If , determine:

a) the equation of its inverse,  b) 

1. The graph of  is shown below.

a) Graph on the same grid then state its domain and range.



Domain of :

Range of :

1. Is a function? If yes, justify. If not, state the restriction on the domain of such that

both and would be functions.

1. a) The graph of is shown below. Sketch the graph of 



1. Write the mapping notation of the point on transformed into its image point on: 
2. Sketch each relation on the grids provided. State the domain and range of each:

a)  b) 



D: D:

R: R:

c)  d) 



D: D:

R: R:

9. State the parent function and the equation of each of the graphs below,  after

the transformations applied to the parent function.

a) b)



 

 