Algebra 3-4 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per:\_\_\_\_\_

Unit 3 Review: Functions & Inverses Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Tell whether the following are functions. Explain.





1. Find domain and range of the given graphs below. State if each graph is a function:

 

 

1. **The following graph completely defines f(x).**



a. Evaluate b. Evaluate

c. Solve 

1. Use the functions, ,  to answer the questions below.

a. Evaluate *f(-7)* b. Solve *h(x)* = -7 c. Evaluate *g(-4)*

d. Solve *g(x)* = 1 e. Solve *f(x)* = -5 f. Evaluate *h(-1)*

g. Find the domain of *f(x)*. h. Find the range of *h(x)* i. Find the range of g*(x)*

1. Given two function machines and .
2. If the two machines are connected so that comes first, and 5 is dropped in, what comes out? (This is finding )
3. If the two machines are connected so that comes first, and 5 is dropped in, what comes out? (This is finding )
4. Find the inverse of the following functions:
	1.
5. Given two function and calculate:
6. Find and verify the inverse of the following functions:

|  |  |
| --- | --- |
| Graph  | Find the inverse. |
| Fill out the table:

|  |  |  |
| --- | --- | --- |
|  | Original | Inverse |
| Domain |  |  |
| Range |  |  |
| x-intercept |  |  |
| y-intercept |  |  |

 | Why isn’t the inverse a full parabola with a domain of ? |

10.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Think about the function . Will its inverse be a function? Why not? | Fill out the table:

|  |  |  |
| --- | --- | --- |
|  | Original | Inverse |
| Domain |  |  |
| Range |  |  |
| x-intercept |  |  |
| y-intercept |  |  |

 |
| Graph with its restricted domain. | Find the inverse. |