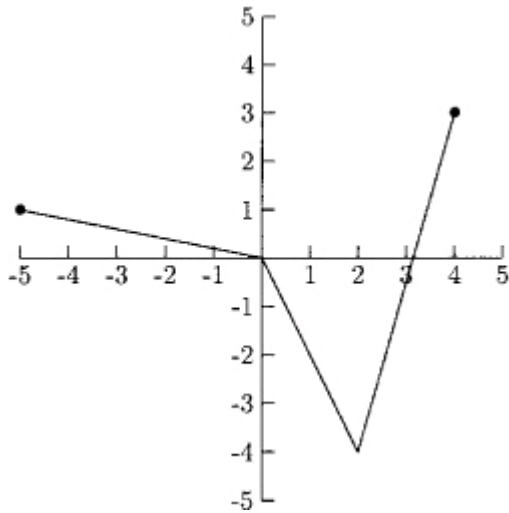1.

Domain:

Range:

x-intercept(s):

y-intercept:

interval increasing:

interval decreasing:

relative minimum:

2. Identify the following for the function: $f(x) = -|x - 7| - 4$

A. Using Function Notation, identify the Parent function

B. Graph and Label the function

C. End Behavior

3. What are the transformations of this function $f(x) = -|x + 2| + 3$?

5. Using the parent function $g(x) = x^2$, write the equation for a function that has been translated 4 units down, 1 unit to the right and vertically stretched by a factor of 4.

6. Which functions has an inverse that is not 1:1?

a) x^3 b) $\sqrt{x}$ c) $|x|$

7. Find the inverse of the following:

$f(x) = 2x + 1$

$f(x) = \dfrac{2x - 3}{4}$

$f(x) = \dfrac{x + 3}{x - 2}$

8.

Example:

$$f(x) = \begin{cases} 2x - 1, & \text{if } x \le 1 \\ 3x + 1, & \text{if } x > 1 \end{cases}$$

Complete the table below by evaluating the function for the given input values:

x	Evaluate:	y
-2		
-1		
0		
1		
2		

9. Complete the table for the piecewise function:

$$f(x) = \begin{cases} -5x+4; & x < -3 \\ 2x+3; & x \geq -3 \end{cases}$$

x	y
-6	
-5	
-3	
0	
3	