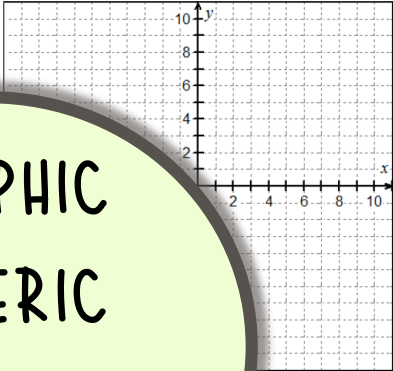


ALGEBRA



Quadratic Functions Name _____
G.N.A.W. Date _____ Period _____

Graphically	Numerically																				
Graph $y = f(x)$ on the grid below. 	<table border="1"><thead><tr><th>x</th><th>$f(x)$</th></tr></thead><tbody><tr><td>-5</td><td></td></tr><tr><td>-4</td><td></td></tr><tr><td>-3</td><td></td></tr><tr><td>-2</td><td></td></tr><tr><td>-1</td><td></td></tr><tr><td>0</td><td></td></tr><tr><td>1</td><td></td></tr><tr><td>2</td><td></td></tr><tr><td>3</td><td></td></tr></tbody></table>	x	$f(x)$	-5		-4		-3		-2		-1		0		1		2		3	
x	$f(x)$																				
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Graphically	Verbally																				
<p>Graphically</p> <p>$x^2 + 2x - 8 = 0$</p>	<ol style="list-style-type: none">1. What is the domain of the function?2. What is the range of the function?																				

GRAPHIC
NUMERIC
ALGEBRAIC
WORDS

GNAW on Quadratic Functions

The Rule of Four

Quadratic Functions

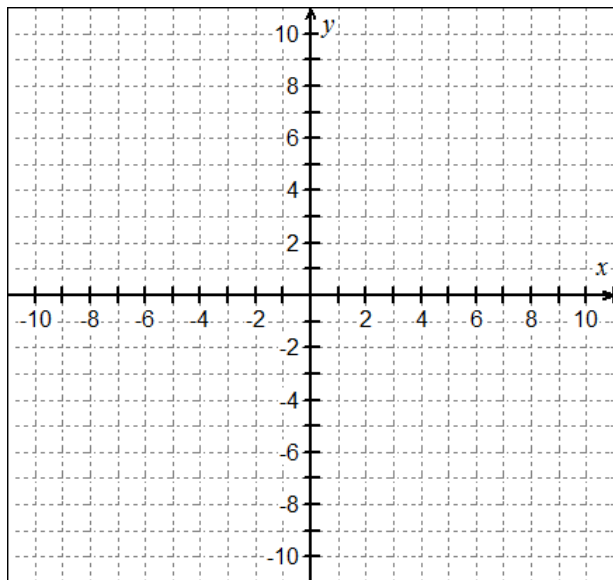
G.N.A.W.

Name _____

Date _____ Period _____

Graphically

Graph $y = f(x)$ on the grid below.



Numerically

x	$f(x)$
-5	
-4	
-3	
-2	
-1	
0	
1	
2	
3	

Algebraically

Given $f(x) = x^2 + 2x - 8$, solve the quadratic equation by factoring to find the zeros of the function.

$$x^2 + 2x - 8 = 0$$

Verbally

1. What is the domain of the function?
2. What is the range of the function?
3. Find the following, if they exist:
 - A. The y-intercept
 - B. The x-intercept(s)
 - C. Maximum or minimum value
 - D. Axis of symmetry

Quadratic Functions

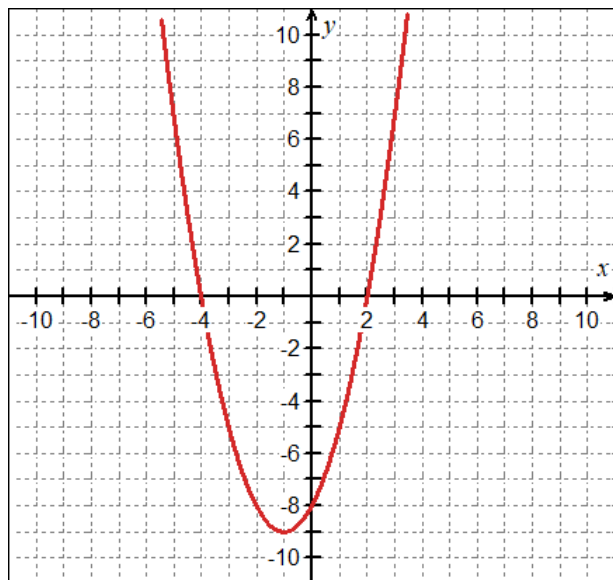
G.N.A.W.

Name _____

Date _____ Period _____

Graphically

Graph $y = f(x)$ on the grid below.



Numerically

x	$f(x)$
-5	7
-4	0
-3	-5
-2	-8
-1	-9
0	-8
1	-5
2	0
3	7

Algebraically

Given $f(x) = x^2 + 2x - 8$, solve the quadratic equation by factoring to find the zeros of the function.

$$x^2 + 2x - 8 = 0$$

$$(x + 4)(x - 2) = 0$$

$$x = -4, x = 2$$

$$(x + 1)^2 - 9 = 0$$

Verbally

1. What is the domain of the function?

$$(-\infty, \infty)$$

2. What is the range of the function?

$$[-9, \infty)$$

3. Find the following, if they exist:

A. The y-intercept

$$(0, -8)$$

B. The x-intercept(s)

$$(-4, 0)(2, 0)$$

C. Maximum or minimum value

$$-9 \text{ is minimum value}$$

D. Axis of symmetry

$$x = -1$$