

5 (AM) Advanced Mastery 1	.00%
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- 4 (M) Mastery 93%
- 3 (VM) Vital Mastery 82%
- 2 (FM) Foundational Mastery 70%
- 1 (NYM) Not Yet Mastered 45%
- 0 (NA) No Attempt 0%

Name: _	
Per:	Date:

Pre-Assessment					
IM2 – 3.3 (A – Pre V1) Quadratic Function Forms (Reveals)					
Standards & Skill Mastery					
Student Self-Score	Skills Assessed / Goals		Teacher Score		
	F.IF.8a – I can identify q	uadratic function forms based on their			
	characteristics and vice versa.				
SMP – I can self-reflect a		and clearly communicate my plan for			
	improvement.				
Pre-Assessment Reflection					
Check all that apply. To study for this assessment, I will independently, rework the pre-assessment. complete all of my practice. watch tutorials online. study my notes until I understand them. work through practice problems & recheck answers.		My plan to maintain or improve my mastery is. (what, when, and how?)			
Key Terms, Formulas, & Notes					
<u>Quadratic Parent</u>	$\underline{Function} \equiv f(x) = x^2$				

Directions – Match the quadratic function with its form name. Write the letters a, b, or c, next to the appropriate function.

1.
$$_{---}f(x) = a(x-h)^2 + k$$

a. Vertex Form

2.
$$_{---} f(x) = a(x - r_1)(x - r_2)$$

b. Standard Form

3.
$$_{---} f(x) = ax^2 + bx + c$$

c. Factored Form

Directions – Match the quadratic function with the key characteristics it reveals. Write the letters a, b, or c, next to the appropriate function.

4.
$$f(x) = a(x - h)^2 + k$$

a. Roots, Zeros, & x - intercepts

5.
$$f(x) = a(x - r_1)(x - r_2)$$

b. y - intercept

6.
$$_{----}f(x) = ax^2 + bx + c$$

c. vertex

Directions – Determine the form name and all key characteristics that can be determined by each function, below, without rewriting the function in another form. For key characteristics that cannot be determined, write "N/A."

7.
$$f(x) = -12(x+3)^2 - 8$$

- a. Form:
- b. Roots: _____ & _____
- c. Zeros: _____ & ____
- d. x-intercepts: _____ & _____
- e. y-intercept:
- f. Vertex:
- g. Axis of Symmetry:
- h. Concavity: up or down \leftarrow Circle one
- i. Dilation: stretched by _____, compressed by _____, or none (1)

8.
$$f(x) = 2x^2 + 8x + 12$$

- a. Form: _____
- b. Roots: _____ & ____
- c. Zeros: _____ & _____
- d. x-intercepts: _____ & _____
- e. y-intercept: _____
- f. Vertex:
- g. Axis of Symmetry:
- h. Concavity: up or down ← Circle one
- i. Dilation: stretched by _____, compressed by _____, or none (1)

9.
$$f(x) = -\frac{1}{3}(x-2)(x+6)$$

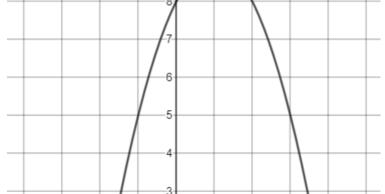
- a. Form:
- b. Roots: _____ & ____
- c. Zeros: ______ & _____
- e. y-intercept: _____
- f. Vertex:
- g. Axis of Symmetry:
- h. Concavity: up or down ← Circle one
- i. Dilation: stretched by _____, compressed by _____, or none (1)

Directions – Error Analysis: A student wrote each form of function based on the graph, below. Circle any or all mistakes you find within the student's work below. Then, correct the error(s).

10. Factored Form: f(x) = -(x - 2)(x + 4)



11. Standard Form: $f(x) = -x^2 + 2x + 8$



12. Vertex Form: $f(x) = -(x+1)^2 + 9$

