

# IM2- 3.3 (P – eV1) Key Characteristics & Quadratic Functions from Graphs

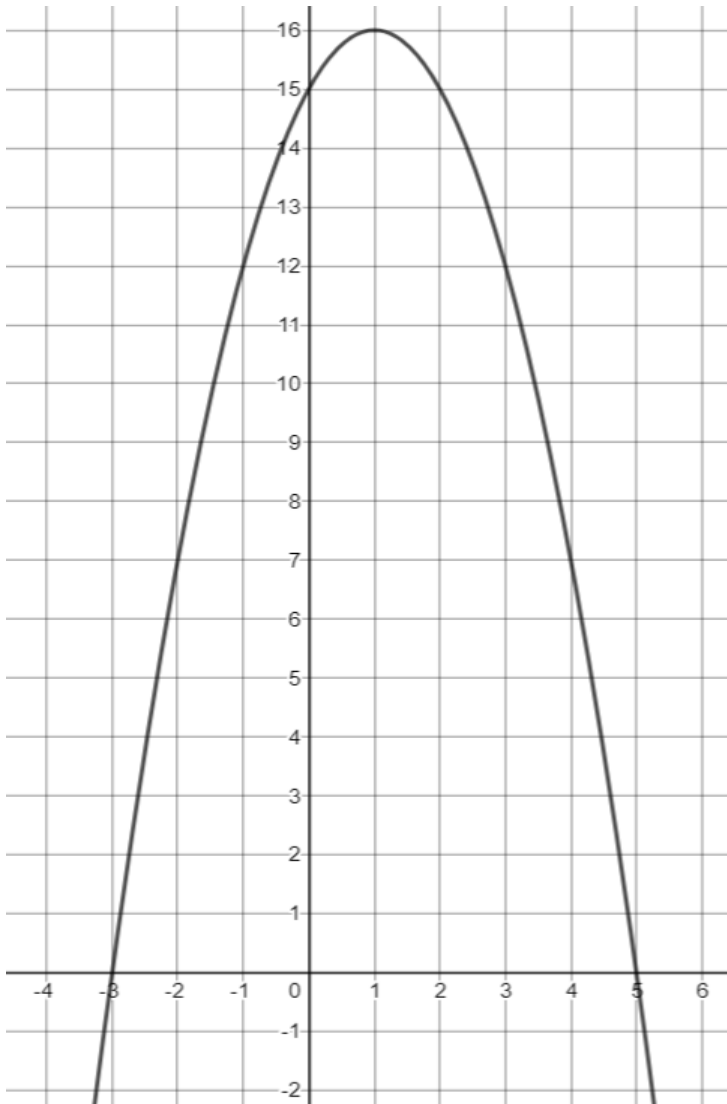
F.IF.8



Name: \_\_\_\_\_ Per: \_\_\_\_\_ Date: \_\_\_\_\_

**Directions** – For each graph below, determine the key characteristics & write the three quadratic forms.

1.



Vertex: \_\_\_\_\_ AoS: \_\_\_\_\_

Concavity: \_\_\_\_\_ Min / Max

Dilation: \_\_\_\_\_

Vertex Form: \_\_\_\_\_

x-intercepts: \_\_\_\_\_ & \_\_\_\_\_

Roots: \_\_\_\_\_ & \_\_\_\_\_

Zeros: \_\_\_\_\_ & \_\_\_\_\_

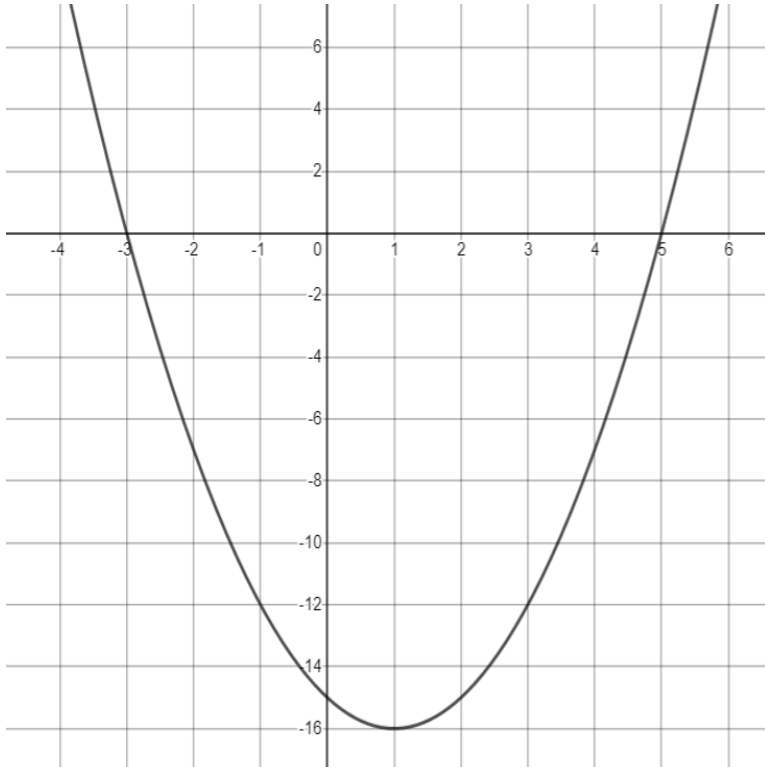
Factored Form: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Standard Form: \_\_\_\_\_

2. On the coordinate plane above (# 1), graph a parabola with a dilation (stretch) of 2, opening upward, and a vertex at (3, -2).
3. Write the vertex form (of # 2) and expand to standard form. Confirm the y-intercept.
4. Identify the x-intercepts, then write the factored form below.

5.



Vertex: \_\_\_\_\_ AoS: \_\_\_\_\_

Concavity: \_\_\_\_\_ Min / Max

Dilation: \_\_\_\_\_

Vertex Form: \_\_\_\_\_

x-intercepts: \_\_\_\_\_ & \_\_\_\_\_

Roots: \_\_\_\_\_ & \_\_\_\_\_

Zeros: \_\_\_\_\_ & \_\_\_\_\_

Factored Form: \_\_\_\_\_

y-intercept: \_\_\_\_\_

Standard Form: \_\_\_\_\_

6. On the coordinate plane above (# 5), graph a parabola with a dilation (stretch) of 2, opening downward, and a vertex of (1, 2).

7. Write the vertex form (of # 6) and expand to standard form. Confirm the y-intercept.

8. Identify the x-intercepts, then write the factored form below.