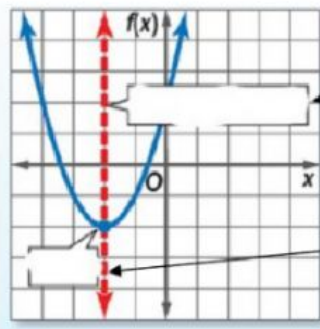


### Characteristics of Parablola

Complete the following by dragging the corresponding word to correctly fill in the blanks.

- The shape of a quadratic equation is called a \_\_\_\_\_  $ax^2 + bx + c$
- Factored form of a quadratic function is  $y =$  \_\_\_\_\_  $a(x - d)^2 + c$
- When the vertex is the lowest on the graph, we call that a \_\_\_\_\_  $a(x - r)(x - s)$
- Standard form of a quadratic function is  $y =$  \_\_\_\_\_ Axis of symmetry
- When the vertex is the highest on the graph, we call that a \_\_\_\_\_ Maximum
- The solutions to quadratic equations are called \_\_\_\_\_ Minimum
- The quadratic equation crosses the vertical axis at the \_\_\_\_\_ Negative
- The graph reflects over the x-axis when the a value is \_\_\_\_\_ Parabola
- Vertex form of a quadratic function is  $y =$  \_\_\_\_\_ Positive



10. \_\_\_\_\_

11. \_\_\_\_\_

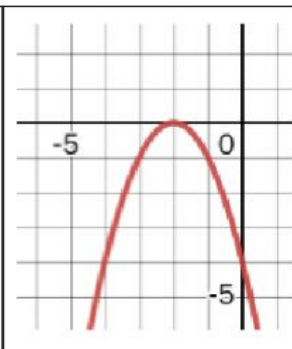
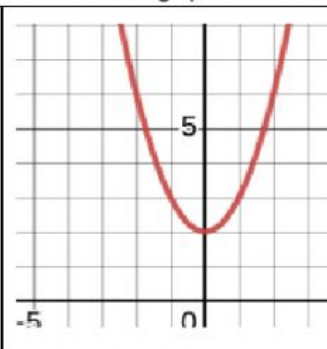
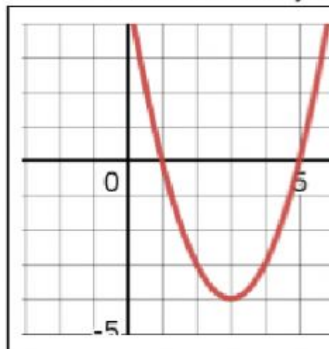
x-intercept

Vertex

y-intercept

zeros/roots

12. Determine how many real roots the following quadratic functions have and the actual roots:



# of roots: \_\_\_\_\_

# of roots: \_\_\_\_\_

# of roots: \_\_\_\_\_

Actual root(s) \_\_\_\_\_

Actual root(s) \_\_\_\_\_

Actual root(s) \_\_\_\_\_