# IM2 – 3.3 (P – bV1) Write Factored & Standard Forms from Key Characteristics

F.IF.4, F.IF.5, F.IF.6

Name: _____ Per: _____ Date: _____

**Directions** - *Write the factored form using the following descriptions.*

1. Write a quadratic function that represents a parabola that opens downward and has x-intercepts (6, 0) and (4, 0). Then, write it in standard form.

2. Write a quadratic function that represents a parabola that opens downward and has x-intercepts $(-9, 0)$ and $(2, 0)$.

3. Write a quadratic function that represents a parabola that opens upward and has x-intercepts $(-7, 0)$ and $(-10, 0)$.

4. Write a quadratic function that represents a parabola that opens upward and has x-intercepts $(14, 0)$ and $(1, 0)$.

5. Write a quadratic function that represents a parabola that opens downward and has x-intercepts $(11, 0)$ and $(-3, 0)$.

6. Write a quadratic function that represents a parabola that opens upward and has the following roots: $64 \ \ and \ \ 28$

7. Write a quadratic function that represents a parabola that opens downward and has zeros at $x = 22$ and $x = -5$. Then, write it in standard form.

8. Write a quadratic function that represents a parabola that opens upward and has the following roots: $99 \ \ and -4$

9. Write a quadratic function that represents a parabola that opens downward and has zeros at $x = 155$ and $x = 304$. Then, write it in standard form.

10. Write a quadratic function that represents a parabola that opens upward and has the following roots: $0.2 \ \ and \ -500$