

Name: _____ Period: _____

7.6 Writing Quadratic Equations

For each of the parabolas described below, write a quadratic equation in Vertex Form. SHOW ALL YOUR WORK.

1. Vertex: $(0, -6)$, passes through $(-2, -10)$ 2. Vertex: $(-3, 7)$ passes through $(0, -20)$

3. Vertex: $(10, -6)$, passes through $(8, 22)$ 4. Vertex: $(-9, 3)$, passes through $(-8, \frac{5}{2})$

Write a quadratic equation (or function) for each parabola described below. Keep your equations in factored form. SHOW ALL YOUR WORK!

5. x -intercepts: $(3, 0)$ & $(6, 0)$, passes through $(4, -8)$

6. Roots: $(-15, 0)$ & $(-7, 0)$, passes through $(-4, 33)$

7. Zeros: -4 & 7 , passes through $(-5, 8)$

8. Roots: $x = 3$ & $x = -3$, passes through $(1, 32)$

For each of the parabolas described below, write a quadratic equation. If the vertex is given, write the equation in vertex form. If the roots, zeros, or x -intercepts are given, write the equation in factored form. SHOW ALL YOUR WORK.

9. Vertex: $(1, -5)$, passes through $(2, -2)$

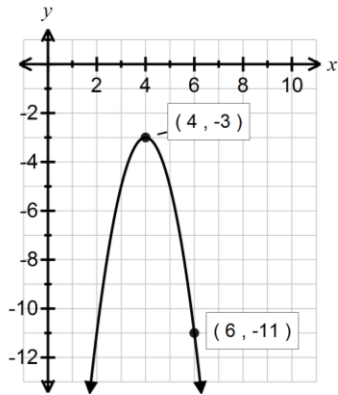
10. Roots: $(-1, 0)$ & $(9, 0)$, passes through $(-4, 5)$

11. Vertex: $(-2, -8)$, passes through $(4, 1)$

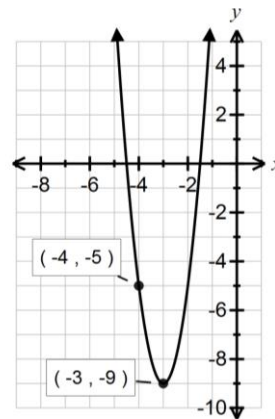
12. zeros: 2 & 4 , passes through $(-6, -80)$

For each of the parabolas described below, write a quadratic equation. If the vertex is given, write the equation in vertex form. If the roots, zeros, or x -intercepts are given, write the equation in factored form. **SHOW ALL YOUR WORK.**

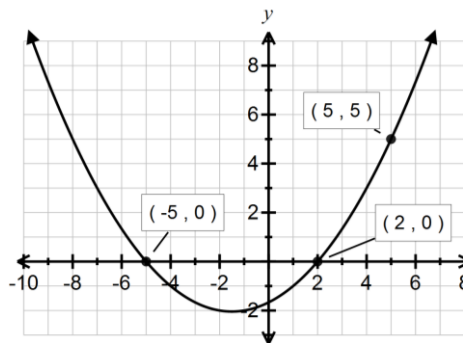
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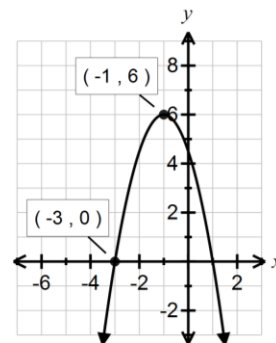
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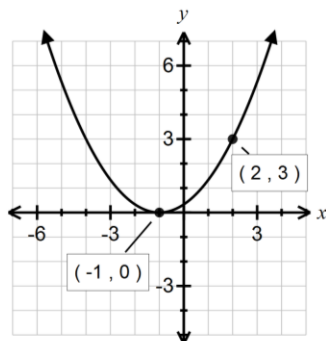
15.



16.



17.



18.

