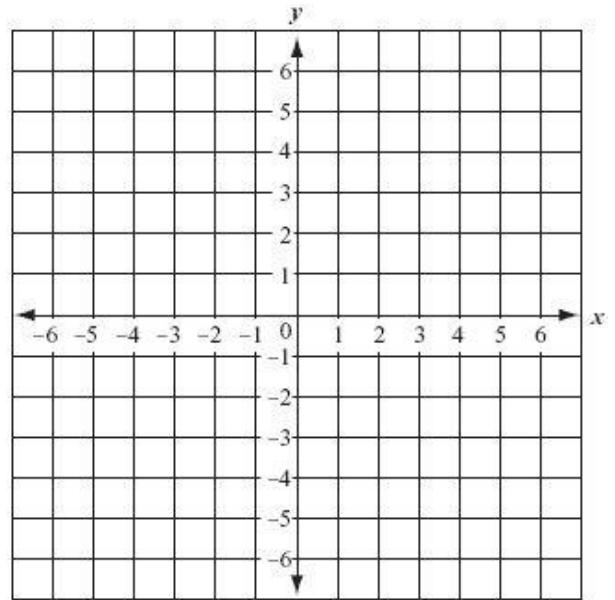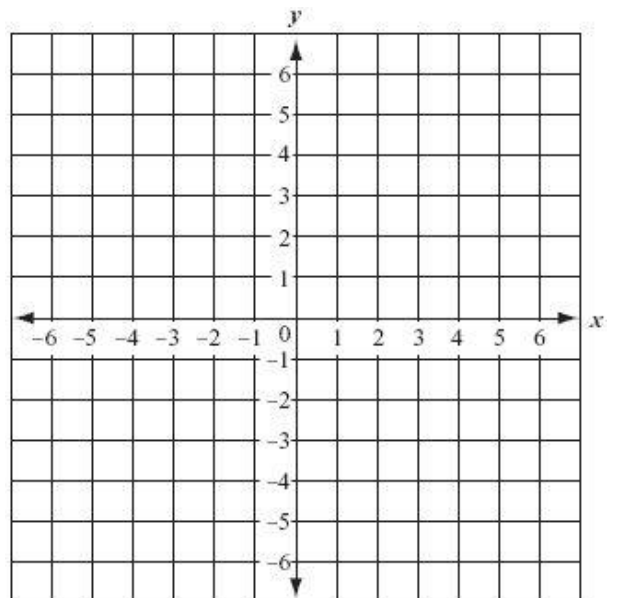## Math 3 – U5, L2, I1 – Vertex Form

Determine if the graph opens up or down, if the graph has a min or max. Find the vertex point, y-intercept and x-intercept. Then graph with all key points marked.

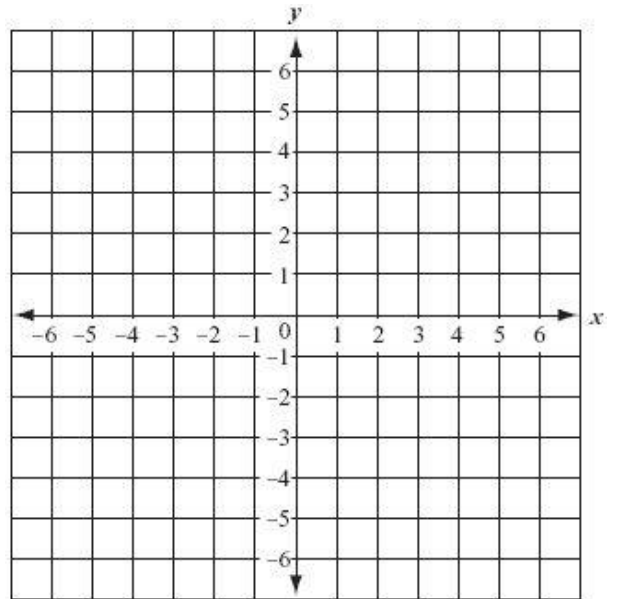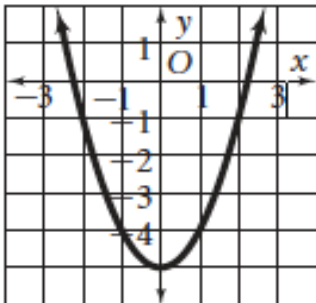   **1.** $y = (x - 2)^2 - 3$

    2. $y = -2(x + 1)^2 - 5$

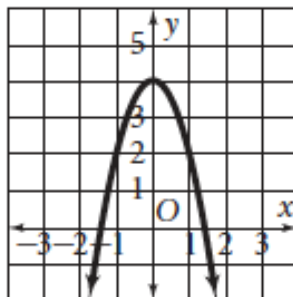## Math 3 – U5, L2, I1 – Vertex Form

3. $y = 4(x - 2)^2$

Write the equation of the parabola in vertex form.

4.

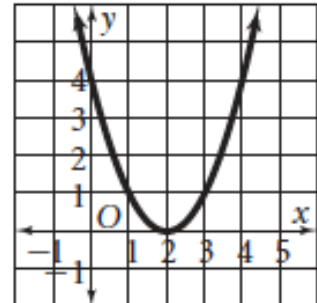5.

6.

Write each function in standard form.

7. $y = (5x + 6)^2 - 9$ **8.** $y = -2(x - 4)^2 + 6$ **9.** $y = 3(2x - 4)^2 - 1$

Identify the vertex, x-intercept and y-intercept.

10. $y = 3(x - 7)^2 - 12$ **11.** $y = (x - 3)^2 - 16$ **12.** $y = -0.5(x + 5)^2 - 7$