

4-1 Practice

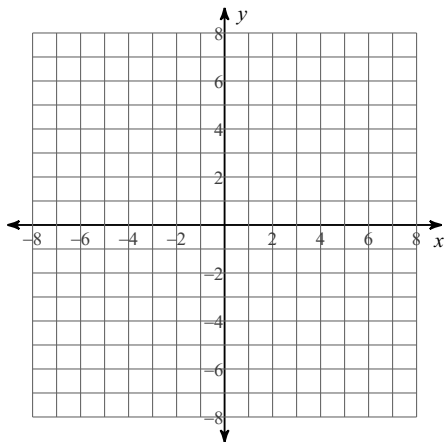
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Name _____

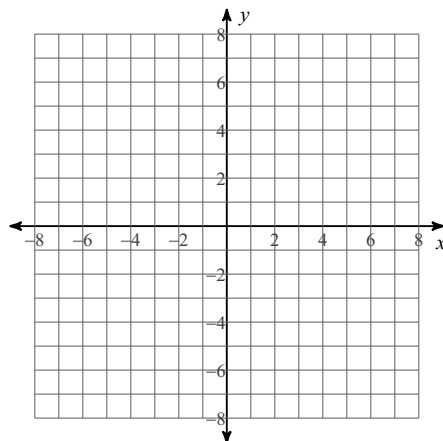
Hour _____

Identify the vertex of each. Then sketch the graph.

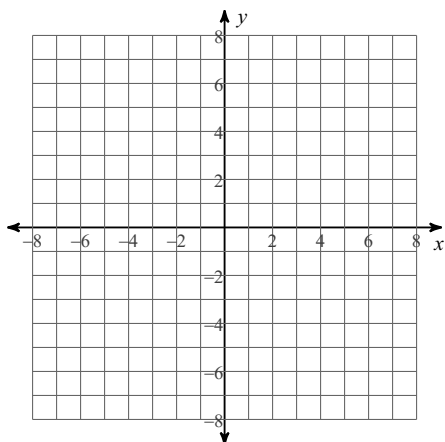
1) $y = -x^2 + 2$



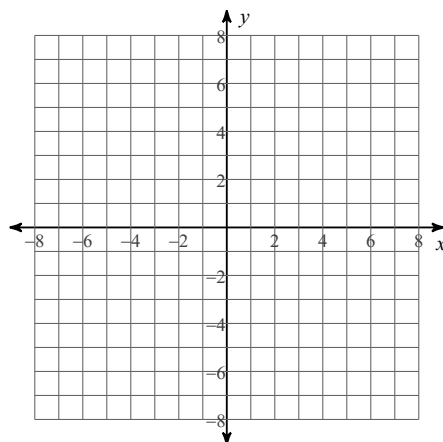
2) $y = 2(x - 5)^2 - 3$



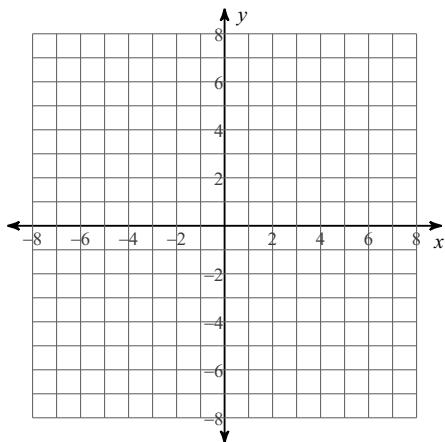
3) $y = \frac{1}{2}(x - 4)^2 + 5$



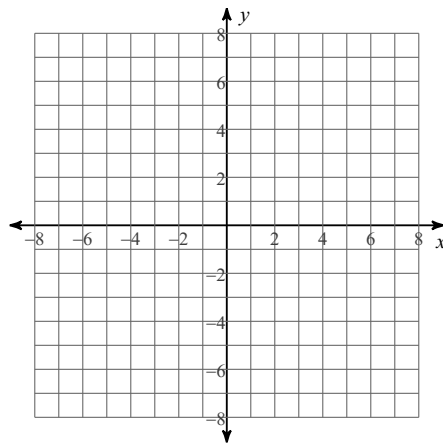
4) $y = -\frac{1}{2}(x - 4)^2 - 6$



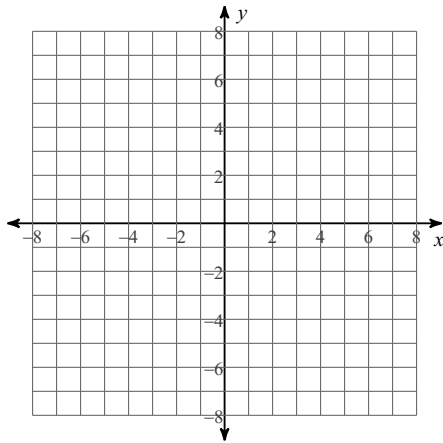
5) $y = \frac{1}{2}(x - 5)^2 + 6$



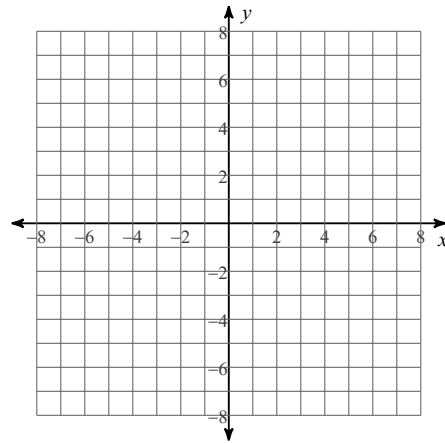
6) $y = -(x - 6)^2 - 1$



7) $y = -(x + 5)^2$



8) $y = 2(x + 3)^2 - 1$



Use the information provided to write the vertex form equation of each parabola.

9) Opens up or down, Vertex: $(-7, 4)$, Passes through: $(-10, 7)$

10) Opens up or down, Vertex: $(7, 3)$, Passes through: $(6, 0)$

11) Opens up or down, Vertex: $(9, -2)$, Passes through: $(10, -5)$

12) Opens up or down, Vertex: $(-3, 6)$, Passes through: $(-5, 8)$

13) Opens up or down, Vertex: $(-8, -9)$, Passes through: $(-7, -7)$

14) Opens up or down, Vertex: $(1, -5)$, Passes through: $(3, -9)$