In Exercises 1 & 2, graph the function by using vertex method learned in today's lesson.

1. \( h(x) = \frac{1}{2}(x - 2)^2 - 1 \)

In Exercises 3–5, graph the function by using the standard form method learned in today's lesson.

2. \( g(x) = -x^2 + 2 \)

3. \( f(x) = -x^2 + 6x - 3 \)
4. $y = \frac{1}{3}x^2 + 2x - 8$

5. How is the formula for the axis of symmetry found from expanding $f(x) = a(x - h)^2 + k$ and comparing it to $g(x) = ax^2 + bx + c$?

In Exercises 6 & 7, compare the graph of the function with $f(x) = x^2$.
Is the function wider or narrower than $f(x)$? Explain your reasoning. State the y-intercept of each.

6. $y = 4x^2 + 9x$

7. $f(x) = \frac{1}{5}x^2 - 2x - 7$

8. The graph of which function has the same axis of symmetry as the graph of $y = 2x^2 - 8x + 3$? Show why and explain your reasoning.
   A. $y = -4x^2 + 16x - 5$
   B. $y = 2x^2 + 8x + 7$
   C. $y = 3x^2 - 6x + 7$
   D. $y = -6x^2 + 10x - 1$