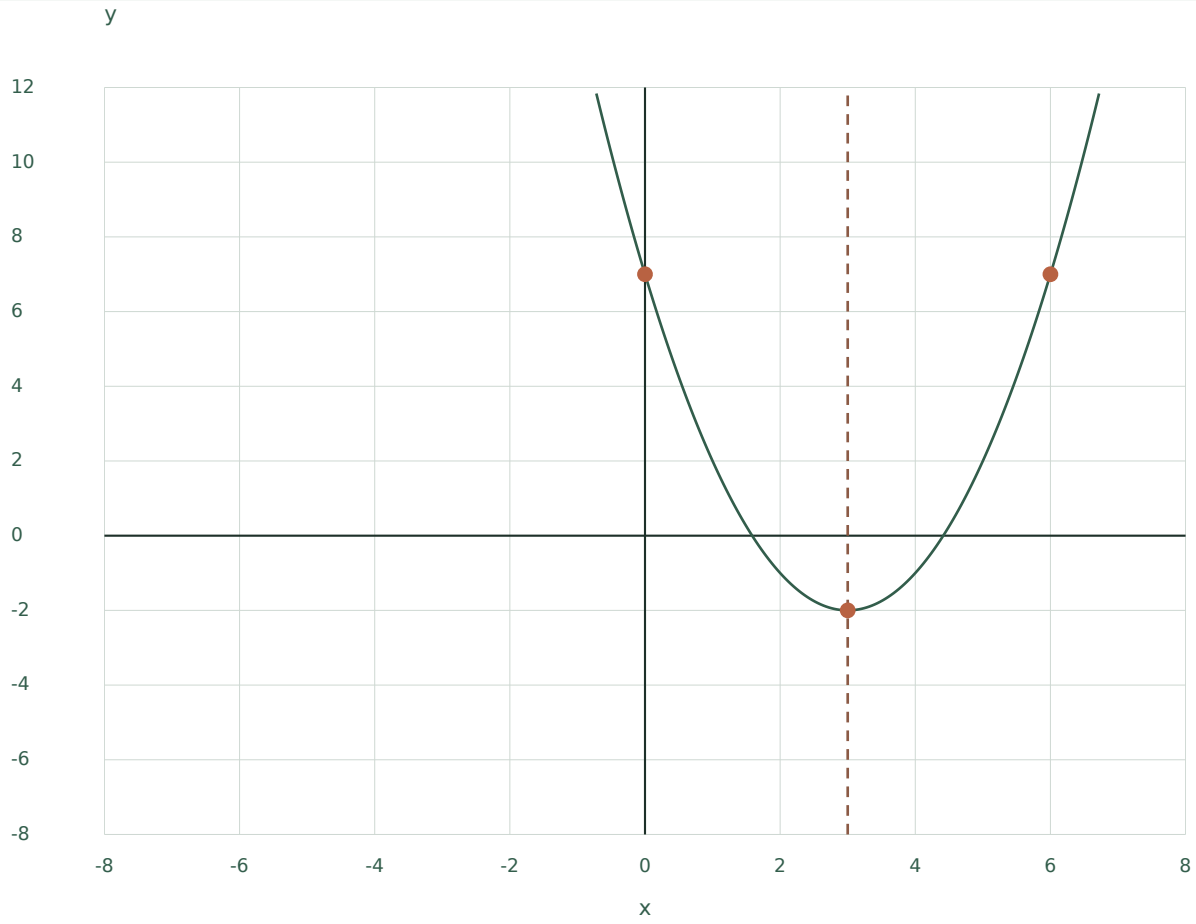
Draw a Parabola's Axis of Symmetry: Vertex, Vertical Line, and Check

Worked graph



Chosen example curvature a=1; the prompt fixes the vertex and symmetry, not a unique width. Dashed brown line is the axis in the answer.

Draw a Parabola's Axis of Symmetry: Vertex, Vertical Line, and Check

Original worked example / unchanged complete key

Prompt: A pre-drawn upward-opening parabola has its lowest point at (3, -2). A horizontal grid line crosses the parabola at x = 0 and x = 6. Find and describe the axis of symmetry.

Answer: The vertex is (3, -2), so the axis is the vertical line x = 3. Check: the average of 0 and 6 is (0 + 6) / 2 = 3, which matches. Draw a dashed vertical line through x = 3, extending above and below the vertex, and label it x = 3.