Write Quadratic Equations from Parabola Graphs: Vertex Form to Standard Form

Worked example / complete source key

A parabola has vertex (-2, 3) and passes through (0, 7). Write its equation in vertex form and standard form.

Answer: Vertex form: $y = (x + 2)^2 + 3$. Standard form: $y = x^2 + 4x + 7$.