

Converting Vertex Form to Standard

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

① EXPAND THE
SQUARED
BINOMIAL

$$y = 2(x - 3)(x - 3) + 4$$

② FOIL

③ Distribute

$$y = 2(x^2 - 3x - 3x + 9) + 4$$

④ Combine

$$y = 2(x^2 - 6x + 9) + 4$$

$$y = 2x^2 - 12x + 18 + 4$$

$$y = 2x^2 - 12x + 22$$