Transformation Worksheet I

Sketch the graphs of the following transformed parabolas. Use your knowledge of vertices (minimum and maximum), x-intercepts, y-intercept, translations, reflections, etc. to make an accurate sketch.

1) \( y = x^2 \)

2) \( y = x^2 - 4 \)

3) \( y = (x - 4)^2 \)

4) \( y = (x + 3)^2 \)

5) \( y = (x + 2)^2 - 3 \)

6) \( y = 3x^2 \)

7) \( y = 2(x - 1)^2 \)

8) \( y = -3(x + 3)^2 + 4 \)

9) \( y = \frac{1}{2}(x - 2)^2 - 5 \)