Foundations and Pre-Calculus 10
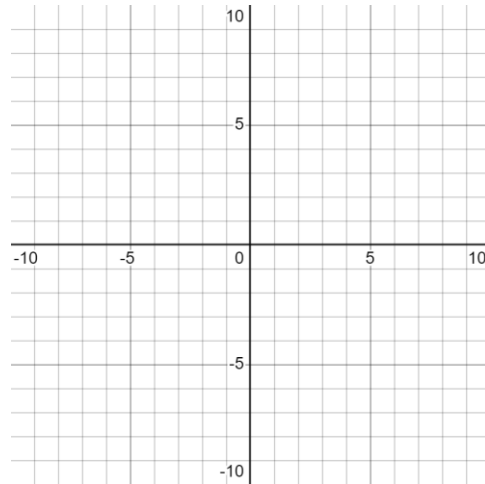
Section 2.1b – Graphing Parabolas

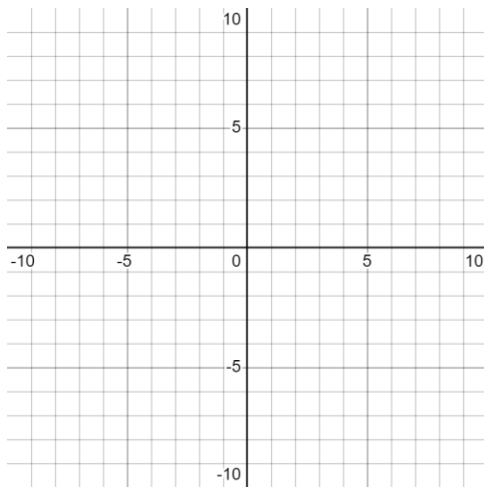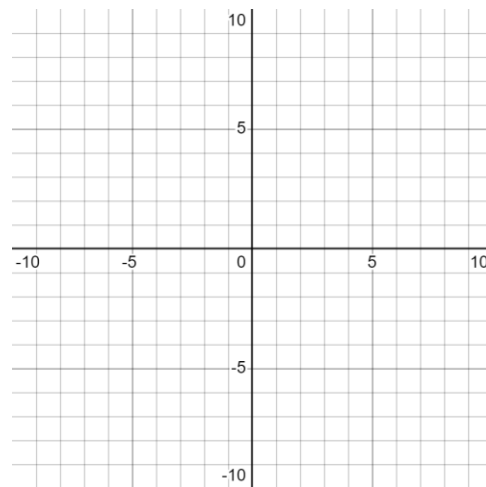**No Shift** – Find your Axis of Symmetry

$$y = x^2$$
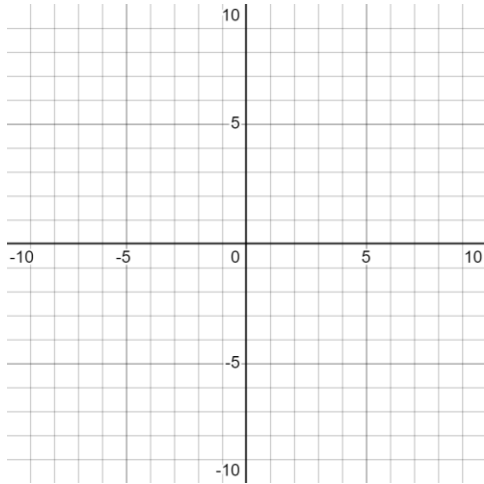
$$y = -x^2$$

Vertical Shift – Find your Axis of Symmetry
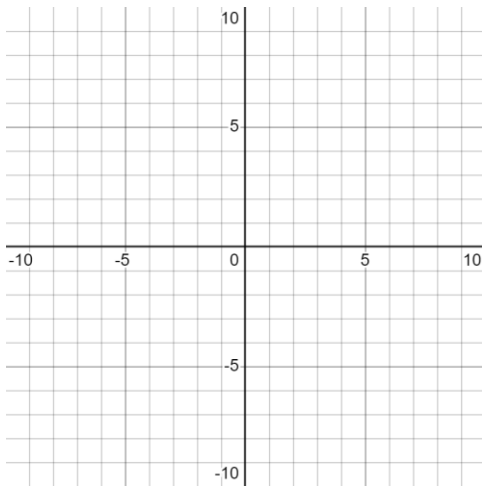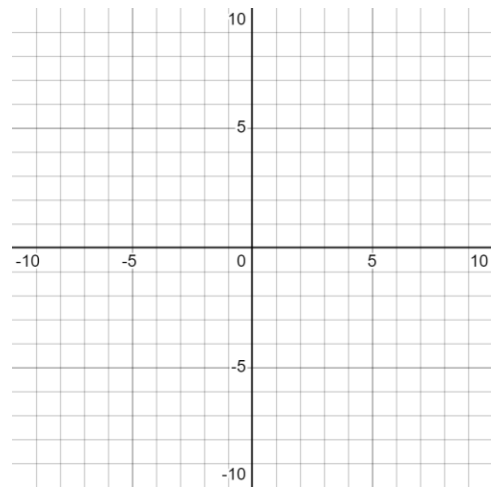
$$y = x^2 - 4$$

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

Horizontal Shift – What makes the inner portion 0? That is your Axis of Symmetry
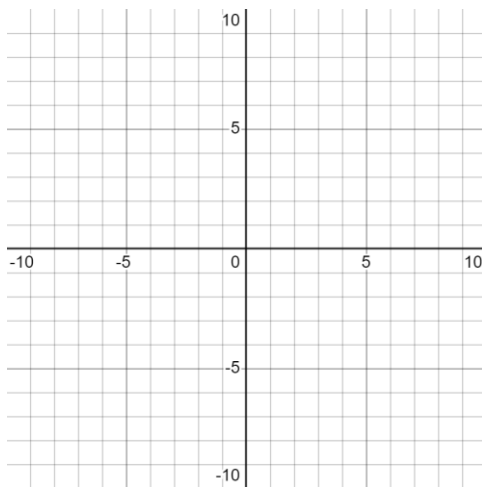
$$y = (x - 3)^2$$

$$y = (x + 5)^2$$

Both Shift – What makes the inner portion 0? That is your Axis of Symmetry

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

$$y = (x - 1)^2 + 3$$