

### Notes: Writing Equations of Parabolas

Parametric Equations

$$x = aT^2$$

$$y = T$$

\*\*main use to check graphs that are  $x = y^2$

Write the Cartesian equation of the parabola in vertex form.

1. Vertex (5, 1) focus  $(4\frac{11}{12}, 1)$

2. Vertex (0, -4) focus  $(0, -3\frac{7}{8})$

3. Focus (6, 7) directrix  $x = 1$

4. Focus (-2, 5) directrix  $y = 3$