

## Parabolas

1. Graph:

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

b.  $(y - 3)^2 = -2(x + 2)$

2. Find an equation of the parabola with:

a. focus  $(-2, 0)$  and directrix  $x = 0$ .

b. vertex  $(-1, 2)$ , axis parallel to the  $y$ -axis and passing through  $(-4, 5)$ .