

Find the vertex and y-intercept and sketch a graph

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

$$y = -3x^2 + 6x + 7$$

Write the equation of a parabola, in standard form, that passes through the points $(-1, 5)$, $(4, 0)$, and $(5, -7)$.

Write the equation of a parabola, in standard form, that passes through the points $(2, -12)$, $(-1, -15)$, and $(-4, -90)$.