

Math 70 - Quiz 5 Sections 4.2 - 4.4, Friday March 7th, 2008.

1). Put the following quadratic equation into standard form.

$$f(x) = (x + 1)(x - 3)$$

Given the vertex is at $(1, -4)$, determine the coordinates of the focal point.

2). Given $f(x) = -x^2$, transform the function by first reflecting it across the x-axis. Then compressing it by a factor of $\frac{1}{3}$ and finally shifting it up 3 units.

Write the equation of the new function. Plot (estimate not using table) $f(x) = -x^2$ and the new function you constructed.