

Unit 6 – Exemplary Practice

1) A parabola has a general form of

$$f(x) = 2x^2 - 4x - 70.$$

The parabola has an x-intercept of $(7,0)$, and an axis of symmetry of $x = 1$.

a) Find the other x-intercept and write the quadratic function $f(x)$ in factored form.

b) Find the vertex and write the quadratic function $f(x)$ in vertex form.

2) A parabola has a general form of

$$f(x) = -3x^2 + 72x - 189.$$

The parabola has an x-intercept of $(3,0)$, and an axis of symmetry of $x = 12$.

a) Find the other x-intercept and write the quadratic function $f(x)$ in factored form.

b) Find the vertex and write the quadratic function $f(x)$ in vertex form.