Name: *Caleb McWhorter — Solutions*
MATH 111-I
Spring 2025
Quiz 5

Problem 1: Consider the quadratic function $f(x) = 3 - 6x - x^2$.

(a) Find a, b, c from the standard form for $f(x)$.

(b) Does the graph of $f(x)$ open upwards or downwards? Explain.

(c) Find the vertex and axis of symmetry for $f(x)$.

Solution.

(a) The standard form of a quadratic function is ax^2+bx+c. Writing $f(x) = 3-6x-x^2 = -x^2-6x+3$, we see that $a = -1$, $b = -6$, and $c = 3$.

(b)

(c)