

Name: \_\_\_\_\_

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  $f(x)$ .