

MAT 1375, Classwork2, Fall2024

ID: _____

Name: _____

1. Given a function $f(x) = x^2 + 4x - 9$. Find (a) $f(2)$ (b) $f(-3)$ (c) $\frac{f(x+h)-f(x)}{h}$

2. Consider the function described by the following formula. What is the domain of this function? Graph the function f .

$$f(x) = \begin{cases} x^2 + 1, & \text{for } -2 < x \leq 0 \\ x - 1, & \text{for } 0 < x \leq 2 \\ -x + 4, & \text{for } 2 < x \leq 5 \end{cases}$$

