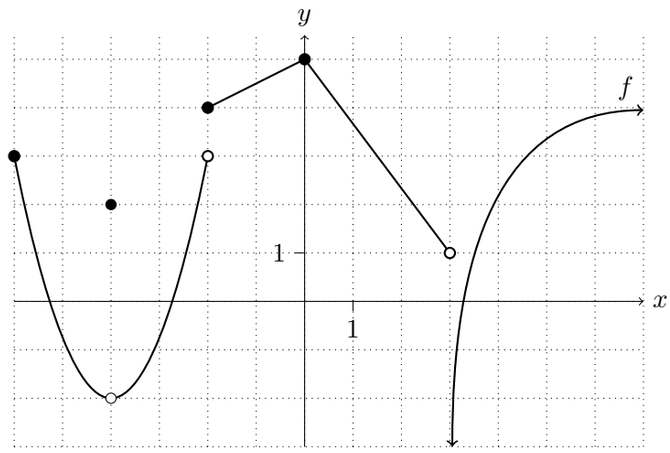
Math 108-03
Spring 2026
Dr. Lily Yen

Quiz 2

Show all your work

Name: _____
Number: _____
Signature: _____
Score: ___/10

Problem 1: The graph of $y = f(x)$ is shown. Use the graph to answer the questions. Use the symbols ∞, $-\infty$, and DNE where appropriate.



a. $f(-4) =$ ☐

b. $\lim_{x \to -2^+} f(x) =$ ☐

c. $\lim_{x \to -2^-} f(x) =$ ☐

d. $\lim_{x \to -2} f(x) =$ ☐

e. $\lim_{h \to 0} \dfrac{f(h) - f(0)}{h} =$ ☐

f. $\lim_{x \to 3^+} f(x) =$ ☐

Score: /6

Problem 2: Use a permissible graphing calculator (TI83, TI83+, TI84-Plus) to set up a table of intervals with their corresponding secant line slopes to estimate the instantaneous rate of change of y with respect to x for the function $f(x) = \sqrt{4 - x} + \dfrac{9}{x^2}$ at $x = 3$. Round your answers to 6 decimal places. Specify your Y_1 and Y_2 as part of your steps.

Interval	$Y_2 =$

Score: /4