Math 108-03
Spring 2026
Dr. Lily Yen

Quiz One

Show all your work

Name: _____
Number: _____
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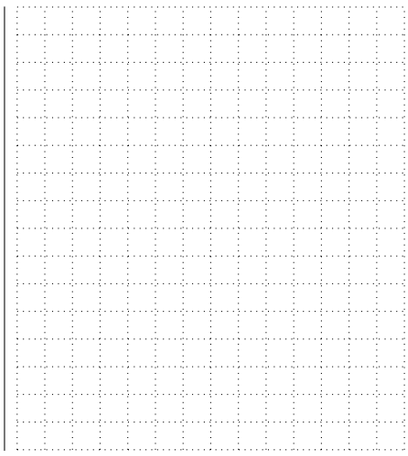
Score: ___/10

Problem 1: Draw the following piece-wise defined function over all real numbers.

$$f(x) = \begin{cases} \sqrt{-x}, & x \leq -2, \\ 4 - 2x, & -2 < x < 4, \\ 5 - (x-5)^2, & \text{otherwise.} \end{cases}$$



Score: /5

Problem 2: Consider the following Canadian unemployment data for those with some post secondary education from 2014 to 2024 given by Stats Canada.

Year	t	Rate (%)
2014	0	7.7
2015	1	7.7
2016		8.0
2017		7.1
2018		6.1
2019		6.0
2020		10.8
2021		9.4
2022		5.6
2023		5.5
2024		6.7

a. State the best linear model for the given data. Next to the given table, draw a scatterplot with axes correctly labelled including units and dimensions of the window from your graphing calculator.

Score: /4

b. Use your model to predict the unemployment rate in 2026. Comment on the accuracy of this prediction.

Score: /1