

Quiz 1

Show all your work

Name: _____

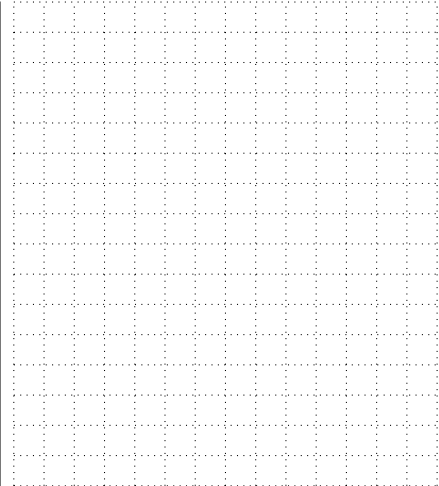
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Score: ____/10

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

$$f(x) = \begin{cases} \sqrt{-1-x}, & x \leq -2, \\ 3-2x, & -2 < x < 4, \\ x^2-23, & \text{otherwise.} \end{cases}$$



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