

Math 108-01  
Summer 2024  
Dr. Lily Yen

# Quiz Two

Show all your work

Name: \_\_\_\_\_  
Number: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Score: \_\_\_\_/10

**Problem 1:** Use a permissible graphing calculator (TI83, TI83+, TI84-Plus) to evaluate the following. Round your answers to 6 decimal places.

a.  $\frac{213.9 - 2.3^4}{\sqrt{5.39} - 20.8} \approx$

b.  $\left(\frac{10}{3}\right)^{1.41} - 12.4 \times \left(\frac{9}{11}\right)^{-1.23} \approx$

Score: /2

**Problem 2:** Shown is a sample of 10 males from a data set from kaggle.com showing height, weight, shoes size and gender of people.

Height (cm):	180	165	178	182	160	181	184	180	179	177
Shoe size (European):	42	41	42	36	43	43	43	44	42	43

Use the given data to answer the following questions:

- a. Draw a scatter plot. Provide dimensions of the window and label your axes.

Score: /2

- b. Use linear regression to find a model to fit your plot. Report your model to six decimal places.

Score: /2

- c. According to your model, what is the shoe size accurate rounded to a whole number of a student with a height of 185 cm? Comment on the reliability of your answer.

Score: /1

- d. According to your model, what is the predicted height for a student with a shoe size of 46? Comment on the reliability of your answer.

Score: /2

- e. Comment on the reliability of your linear regression model relative to the scatter plot.

Score: /1