

Name: _____

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FINITE MATH: QUIZ 7 SOLUTION

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Problem 1. The following is a list of 10 randomly generated integers between 10 and 99.

12 92 67 57 66 19 61 85 72 90

- a) (4pt) Construct a frequency table using the following bins: $[10 - 40]$, $[40 - 70]$, $[70 - 100]$. Compute both the **frequency** and **relative frequency** for each category.

Bin	Freq	Rel Freq
10—40	2	0.2
40—70	4	0.4
70—90	4	0.4
Total	10	1

- b) (3pt) Compute the mean, median, and mode for this data set.

For the mean, we add everything up and divide by 10:

$$\mu = \frac{621}{10} = 62.1$$

For the median, we need to sort the data first:

12 19 57 61 66 67 72 85 90 92

so the median is going to be $(66+67)/2 = 66.5$. This particular data set doesn't have a mode, since no value occurs more than once.

Problem 2. (2pt) A survey asks students in a dorm how many siblings (not including themselves) they have. The frequency table below summarizes the results. What is the average number of siblings for this population?

# Siblings	Freq
0	4
1	2
2	5
3	2
4	1

$$\mu = \frac{0 \cdot 4 + 1 \cdot 2 + 2 \cdot 5 + 3 \cdot 2 + 4 \cdot 1}{14} = \frac{22}{14} \approx 1.57$$

Problem 3. (2pt) A student's grade in a course depends on 3 equally weighted exams, each out of 100 points. His first 2 exam scores are 89 and 78. What is the maximum grade he can get for the course?

The maximum the student can get is if he scores 100 on his last exam.
The course grade will be

$$\max = \frac{89 + 78 + 100}{3} = \frac{267}{3} = 89$$