

Quiz 2**Name:** _____**Date: January 24, 2020****Stat 101: Spring 2020**

Instructions:

Please answer the questions below. Show all your work. Calculators are allowed, please simplify all answers to three significant figures.

Problem 1. (5 points) Consider the contingency table below. Here we are examining an association between higher education level and divorce rates.

| | No | Yes | Total |
|--------------|-------|-------|-------|
| Some College | 1,012 | 988 | 2,000 |
| Bachelors | 2,427 | 1,573 | 4,000 |
| Masters | 948 | 552 | 1,500 |
| Phd | 390 | 110 | 500 |
| Total | 4,777 | 3,223 | 8,000 |

- a) Draw the marginal distribution of Education level.
- b) Draw the conditional distribution of divorce rates, given we are interested in individuals with Masters degrees. Compare the marginal(from a) and conditional distribution.
- c) What is the proportion of individuals who have not gotten divorced and have either a bachelors degree or a PhD.

Problem 2. (4 points) From the given data, draw both a histogram and a stem-and-leaf-plot.

20, 20, 20, 20, 21, 21, 21, 24, 24, 24, 25, 26, 27, 30, 30, 30, 31, 31, 31, 34, 34, 34, 44, 44, 46, 46, 51,
52, 59, 61, 62, 79

Problem 3. (1 points) How is the pace of the class so far?