

Math 153 - Quiz 2

August 31, 2017

Name Key

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) A sample of 4 is selected by randomly choosing 2 students whose last initial is A-K and 2 students whose last initial is L-Z. Is this a simple random sample of size 4? Explain your reasoning.

No, NOT EVERY SAMPLE OF SIZE 4 IS EQUALLY LIKELY.

• FOR EXAMPLE, A SAMPLE OF 4 A'S IS IMPOSSIBLE.

2. (4 points) Determine whether each statement is true (T) or false (F).
- (a) F A parameter is a numerical value that describes a characteristic of a sample.

(b) F Only quantitative data are at the ordinal level.

(c) F Numerical calculations can be performed on data at the nominal level.

(d) F To select a stratified sample, divide a population into groups and then select all of the members of at least one of the groups.

3. (3 points) Determine the level of measurement. Choose from nominal, ordinal, interval, or ratio.

(a) The calendar years in which new popes have been chosen

INTERVAL

(b) Ranks of enlisted women in the U.S. Marine Corps

ORDINAL

(c) Weights of full boxes of Cheerios

RATIO

4. (1 point) Every 3rd person on the class roster is selected for a survey. What type of sample is this?

SYSTEMATIC