

Math 153 - Quiz 2

September 6, 2018

Name key Score _____

Show all work to receive full credit. Supply explanations when necessary. This quiz is worth 5 points. YOU MUST WORK INDIVIDUALLY.

1. (2 points) What type of sampling is described in each situation. Choose the most appropriate choice from random, systematic, convenience, stratified, or cluster.

(a) A sample is surveyed from the population of a statistics class by identifying groups of males and females, then randomly selecting five students from each group.

STRATA

SOME FROM ALL

STRATIFIED

(b) A student conducted a survey on campus by randomly selecting three different classes and surveying all of the students as they left those classes.

CLUSTERS

ALL FROM SOME

CLUSTER

(c) The New York State Department of Transportation evaluated the quality of the New York State Thruway by testing core samples collected every one mile.

SYSTEMATIC

(d) During the last presidential election, CNN conducted an exit poll in which specific polling stations were randomly selected, and all voters were surveyed as they left the premises.

CLUSTERS

ALL FROM SOME

CLUSTER

2. (3 points) The following table summarizes the ages of the winners of the Best Actress Oscar.

Age of Best Actress (yr)	Frequency
20-29	29
30-39	34
40-49	14
50-59	3
60-69	5
70-79	1
80-89	1

(a) How many individuals are included in the summary?

$$29 + 34 + 14 + 3 + 5 + 1 + 1 = 29 + 58 = 87$$

(b) What is the class width?

$$30 - 20 = 10$$

(c) Is 29.5 years a possible data value in the collection of data? Explain.

No, FOR TWO REASONS: ¹ THE DATA HAVE APPARENTLY BEEN COLLECTED AS WHOLE NUMBERS, AND

² 29.5 WOULD BE BETWEEN CLASSES (NOWHERE FOR 29.5 TO GO!).