

MATH 120: Quiz 4 - 2/28/2019

(I) A statistics teacher wants to know how students feel about his introductory statistics class. He decides to administer a survey to a random sample of students taking the class. He has two sampling plans in mind. Name the sampling strategy in each.

1. Randomly select a class rank (1st years, sophomores, juniors, and seniors) and survey every student in that class rank. _____

2. Each student has a 9-digit student number.

Randomly choose 20 such numbers. _____

(II) The distribution of annual compensation of CEOs in a sample of 40 public companies in the U.S. has mean and standard deviation of \$6,000,000 and \$4,000,000, respectively. Identify the following as precisely as possible

Population:

Sample:

Parameter(s):

Statistic(s):

Solution

(I) 1. Answer = cluster sample
2. Answer = simple random sample

(II) Population = all CEOs at public companies in the U.S.

Sample = the CEOs in the selected sample of 40 companies

Parameters = the mean and standard deviation of annual compensation of all CEOs

Statistics = the mean and standard deviation of CEO compensation in the sample

Grading: Total points possible = 6.

2 pt for (I): 1pt for each correct answer.

4 pt for (II): 1pt for each correct answer.