

Name: _____

Show work needed to justify your answer.

Date: _____

HW: # 23: Math IBSL - Standard 22 - Sampling

5 points

1 Classify each of the following as either discrete or continuous data.

- a the number of computers you have owned **Discrete**
- b the length of a computer monitor **Continuous**
- c the weight of your computer **Continuous**
- d the number of laptop bags that you have. **Discrete**

2 Ben is studying the average height of students who attend his school. Choose from *convenience*, *simple random*, *systematic*, *stratified* or *quota* to classify each of the following sampling techniques that Ben might use.

- a A sample of 100 students is taken by organizing the students' names by classification (freshman, sophomore, junior or senior), and then selecting 25 students from each classification. **Stratified**
- b A random name is chosen. Starting with that student, every 50th student is chosen until 80 students are included in the sample. **Systematic**
- c A completely random method is used to select 100 students. Each student has the same probability of being chosen at any stage of the sampling process. **Simple Random**
- d The population of the school consists of 70% mathematicians and 30% non-mathematicians. Seven mathematicians and three non-mathematicians are chosen from each grade. **Quota**

3 Determine the type of sampling technique used in each case. Choose from *convenience*, *simple random*, *systematic*, *stratified* or *quota* sample.

- a A fishmonger selects six fish whose lengths are between 11 cm and 15 cm, seven fish whose lengths are between 11 cm and 15 cm, and three fish whose lengths are between 21 cm and 25 cm to test for taste. **Stratified**
- b The school newspaper interviews 50 high school female teachers and 50 high school male teachers. **Stratified**
- c A DJ chooses every fourth song on a playlist. **Systematic**
- d The mathematics club uses a computer to generate 50 random numbers and then picks students whose names correspond to the numbers. **Simple Random**
- f A local newspaper selects to interview people at the seaside. It specifies that 90% of those interviewed must be local residents and 10% must be tourists. **Quota**

