## Abe Mirza

Questions A. Determine whether the given value is a statistic or a parameter.

1. A sample of divers is selected, and the average age is 41.8 years.
2. After checking computer records for every commercial movie made last year the longest running time is found to be 187 minutes
3. All of the cities mayors are surveyed, and the 250 out of them are found to be democrat.
4. The average speed of 35 drivers on the highway.
5. The average IQs of the top 10 Miss Universe finalists.

Questions B. Determine whether the given values are from a discrete or continuous data set.

1. A math teacher counts 4 absent students The weight of SUVs made in Japan.
2. The annual average rainfall in California.
3. The times taken for athletes to run 100 m .
4. The numbers of chocolates in various 500 g boxes.

Questions C. Identify which type of sampling of sampling is used: Random, Systematic, Cluster, Convenience, or Stratified.

1. At a local Mall a researcher ask every $10^{\text {th }}$ passing by shoppers about the new security measure.
2. CNN is planning an exit poll in which 100 polling stations will be randomly selected and all voters will be interviewed as they leave the premises.
3. An engineering student measures the strengths of finger used to push buttons by testing family members.
4. An IRS researcher investigates cheating on income tax reports by surveying all waiters and waitresses at 20 randomly selected restaurants.
5. A marketing expert for MTV is planning a survey in which 500 people will be randomly selected from each age groups of 10-19, 20-29, and so on.
6. The author surveyed all of his students to obtain sample data consisting of the number of credit cards students possesses.
7. Fund-raisers for the college of Newport test a new telemarketing campaign by obtaining a list of all alumni and selecting every $1000^{\text {th }}$ name on the list.
8. In a Gallup poll of 1045 adults, the interview subjects were selected by using a computer to randomly generate telephone numbers that were then called.
9. A market researcher has partitioned all Californian residents into categories of unemployed, employed full time, and employed part time. She is surveying 50 people from each category.
10. Motivated by a student who died from binge drinking. The College of South land conducts a study of students drinking by randomly selecting 10 different classes and interviewing all students in each of those classes.

## Answers

## Questions A.

1. statistic,
2. parameter,
3. parameter,
4. statistic,
5. statistic

## Questions B.

1. Discrete,
2. Continuous,
3. Continuous
4. Continuous,
5. Discrete

## Questions C.

1. Systematic
2. Cluster.
3. Convenience.
4. Cluster.
5. Stratified
6. Convenience.
7. Systematic.
8. Random.
9. Stratified
10. Cluster

## Ungrouped Data

|  | A | B | C | D | E | F | G |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 23 | 33 | 46 | 129 | 33 | 321 | 461 |
|  | 39 | 49 | 78 | 156 | 41 | 319 | 782 |
|  | 32 | 42 | 64 | 145 | 49 | 231 | 643 |
|  | 66 | 76 | 132 | 160 | 56 | 265 | 132 |
|  | 58 | 68 | 116 | 119 | 85 | 541 | 126 |
|  | 42 | 52 | 84 | 134 | 24 | 442 | 184 |
|  | 37 | 47 | 74 | 170 | 73 | 358 | 274 |
|  | 49 | 59 | 98 | 98 | 94 | 149 | 398 |
|  | 47 | 57 | 94 | 144 | 74 | 333 | 394 |
|  | 32 | 42 | 64 | 135 | 23 | 301 | 464 |
|  |  |  |  | 162 | 82 | 329 | 156 |
|  |  |  |  | 152 | 44 | 149 | 288 |
|  |  |  |  | 147 |  | 231 |  |
|  |  |  |  | 136 |  | 149 |  |
|  |  |  |  | 152 |  | 333 |  |
|  |  |  |  | 138 |  | 256 |  |
| Mean |  |  |  |  |  |  |  |
| Mode |  |  |  |  |  |  |  |
| Median |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Max |  |  |  |  |  |  |  |
| Q3 |  |  |  |  |  |  |  |
| Q2 |  |  |  |  |  |  |  |
| Q1 |  |  |  |  |  |  |  |
| Min |  |  |  |  |  |  |  |
| Range |  |  |  |  |  |  |  |
| Box_Plot |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

Answers to Ungrouped Data


