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

2. The weight of SUVs made in Japan.

**3.** The annual average rainfall in California.

- **4.** The times taken for athletes to run 100m.
- **5.** The numbers of chocolates in various 500g 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<sup>th</sup> 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<sup>th</sup> 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**

	Α	В	С	D	Е	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**

		1					г
	Α	В	С	D	E	F	G
	23	33	46	129	33	321	461
	39	49	78	156	41	319	782
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				152	44	149	288
				147		231	
				136		149	
				152		333	
				138		256	
				100		200	
Vlean	42.50	52.50	85.00	142.31	56.50	294.19	358.50
<b>V</b> lode	32	42	64	152		149	
Median	40.5	50.5	81	144.5	52.5	310	341
Max	66	76	132	170	94	541	782
<b>Q</b> 3	49	59	98	154	78	333	462.5
<b>Q2</b>	40.5	50.5	81	144.5	52.5	310	341
<b>Q1</b>	32	42	64	134.5	37	231	170
Viin	23	33	46	98	23	149	126
Range	43	43	86	72	71	392	656
Box_Plot							
							l