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|  | Name | Sho Tanaka | |
|  | **Section:** | | **E** |

Due: *Sept 19, 2019*

Assign **04**: Identifying Data Types & Histograms

CMP-112

**Part-A: Identifying Variable and their Data Type**

Complete the table below. For each of the following scenarios: (a) identify the variable; (b) give 3 *unique* samples of the data; and (c) name the data type (numeric-Discrete, numeric-continuous, or categorical). See problem 0 as an example.

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|  | *The local health club is interested in how many calories college students consume in a day. 125 students are asked the amount of calories consumed the previous day* |

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|  | Twenty-five eighth graders were asked what was their favorite flavor of ice cream |

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|  | Arborists are studying the height of a 10 year old maple trees |

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|  | The community club collected the year members were born to determine who was of retirement age |

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|  | The volunteer clean-up city group collected the generation name of participants, based on their year born. |

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|  | One hundred college students are asked how many hours per week they spend on the Internet |

|  |  |
| --- | --- |
|  | A poll is taken that asks if they are personally worried about Federal spending and the national budget deficit |

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|  | Junior journalists report the revenue classification of local TV news stations as increased, decreased or constant for the period between 2010 and 2015. |

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|  | Geologists studying earthquakes in CA collect distances the tremors reach. |

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|  | Sociologists believe names are becoming more complex, so the ask 100 college freshman for the total length of the first and last name (including and spaces or special characters) |

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|  | The purchasing department wants to ensure the shelves are stocked properly, so they keep track of men’s shirt styles for four months |

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| --- | --- | --- | --- |
| No. | variable | **3** Samples (include any units if applicable, Eg. inches) | Data Type |
| *0* | *Calories* | *2200 cal, 3745 cal, 2845 cal counting cal* | *Numeric - discrete* |
| 1 | Ice cream flavors | Chocolate, Vanilla, Mint | Categorical |
| 2 | Maple Trees Height | 50 ft, 46 ft, 52ft | Numeric – Continuous |
| 3 | Retirement Age | 1940, 1945, 1955 | Numeric – Discrete |
| 4 | Generation Name | Gen Z, Gen X, Traditionalist | Categorical |
| 5 | Time on the internet | 25 hours, 12 hours, 19 hours | Numeric – Discrete |
| 6 | Poll answers | Yes, No, Maybe | Categorical |
| 7 | Revenue Report | Increased, Decreased, Constant | Categorical |
| 8 | Distance | 230km, 180km, 210km | Numeric – Continuous |
| 9 | Length of First-LastName | 15, 17, 19 | Numeric – Discrete |
| 10 | Men’s shirt Styles | T-shirt, Polo Shirt, Dress Shirt | Categorical |

**Part-B: Identifying Histogram Shapes**

For each of the following histograms, draw a smooth curve that has the format of one of the three basic histogram shapes and then ID the shape (Normal, Left Skewed, Right Skewed)

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|  |  | | | |  |  | | |
| Shape: | Skewed right |  |  | | Shape: | Normal |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | | | |  |  | | | |
| Shape: | Skewed left |  |  | | | Shape: | Skewed Right |

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|  |  | | | |  |  | | |
| Shape: | Normal |  |  | | Shape: | Skewed left |

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| --- | --- | --- | --- | --- | --- |
| Shape: | Skewed Right |  |  | Shape: | Normal |

**Part-C: Drawing Basic Histogram Shapes**

For each of the following, draw a smooth curve of the requested histogram **shapes**, (NOT the histogram), on given line.

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| --- | --- | --- | --- |
|  | The shape of a bell curve |  | The shape of a left skewed curve |

**What to submit**: This assignment paper