

(please print legibly)

For quantitative questions 1 – 3 $U = \mathbb{R}$ (the universe is the real numbers) Let $S = \mathbb{Z}$ (the sample space is the integers). So, for any function, f , the domain will be a subset of \mathbb{Z} and the codomain is \mathbb{R}

(so the range is a subset of \mathbb{R}) $f: A \longrightarrow \mathbb{R}$ where $A \subseteq \mathbb{Z}$

1. Let a data set be $D = \{1, 2, 3, 3, 5, 3, 3, 4, 5, 4, 5, 4, 5, 3, 3\}$

Find:

- | | | | |
|----|------------------------|----|--------------------------------|
| A. | the range of the data | B. | the frequency of data value 4. |
| C. | the mode of the sample | D. | the frequency of data value 3. |
| E. | the range of the data | F. | the frequency of data value 6. |

2. Let a data set be $D = \{1, -2, 3, -3, 5, -3, 3, -4, 5, -4, 5, -4, 5, -3, 3\}$

Find:

- | | | | |
|----|------------------------|----|--------------------------------|
| A. | the range of the data | B. | the frequency of data value 4. |
| C. | the mode of the sample | D. | the frequency of data value 3. |
| E. | the range of the data | F. | the frequency of data value 0. |

3. Let the data set be defined by the following frequency table:

$X = x$	1	2	3	4	5
$f r(x)$	1	1	6	3	4

Find:

- | | | | |
|----|------------------------|----|--------------------------------|
| A. | the range of the data | B. | the frequency of data value 4. |
| C. | the mode of the sample | D. | the frequency of data value 3. |
| E. | the range of the data | F. | the frequency of data value 0. |

4. Classify each as nominal, ordinal, interval, or ratio data.

- the pages in the city of Kutztown telephone book.
- the rankings of tennis players in the French Open men's singles..
- weights of people in pounds.
- rating of eight professors on tghat rating of professors web-site (poor, fair, good, excellent).
- time required for a tune-up od a car at Kutztown Auto.
- marital status of patients in a physician's office.

5. Classify each variable as qualitative or quantitative.

- number of bicycles sold in 1 year by a large sporting goods store.
- colours of baseball caps in a store.
- times it takes to cut a lawn.
- capacity in cubic feet of a U-Haul truck storage interior.
- weight of fish caught in the Schuylkill River.

6. Classify each variable as discrete or continuous.

- number of doughnuts sold each day at The Frying Dutchman.
- water temperature of the Kutztown swimming pool on a given day.
- weights of my cats.
- lifetime (in hours) of a fluorescent light bulb.
- the number of cheeseburgers sold each day at the Kutztown Burger King