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Dr. Immanuel Williams, April 13, 2017 This quiz is worth a total of $\mathbf{2 0}$ points.

Answer each question to the best of your ability. Be sure to stay positive.

1. Fill out table.

| Information | Population | Sample |
| :---: | :---: | :---: |
| Mean |  | $\bar{x}$ |
| Standard Deviation | $\sigma$ |  |
| Variance |  | $s^{2}$ |
| Proportion | $p$ |  |

2. Specify the type of variable. Use a check or X.

| Variable | Nominal | Ordinal | Interval | Ratio |
| :---: | :--- | :--- | :--- | :--- |
| GPA |  |  |  |  |
| Gender |  |  |  |  |
| City |  |  |  |  |
| Shirt Size (Small, Medium, Large) |  |  |  |  |
| Birth Year |  |  |  |  |

3. Which type of sampling design allows for each element in the population to have the same probability of being in sample?
$\qquad$
4. Find the following statistics from this data set: $1,2,2,4,5,6,7,5,9,10,3$
5. Mean $\qquad$
6. Median $\qquad$
7. Mode $\qquad$
8. In a histogram, what are the three characteristics that you can determine from looking at the plot?

- $\qquad$
- $\qquad$
- $\qquad$

6. Describe the shape of the distribution based on the following relationships between the $\bar{x}$ (mean) and $M$ (Median.

- $\bar{x}>M$ $\qquad$
- $\bar{x}<M$ $\qquad$
- $\bar{x} \approx M$ $\qquad$

