## Quiz 1

Name: $\qquad$
Math 1040-1
May 25, 2012

Directions: Show all work for full credit. Clearly indicate all answers. Simplify all mathematical expressions completely. Each questions is worth 10 points.

1. Identify the population and the sample for the following study:

A survey of 1442 U.S. adults found that $36 \%$ received an influenza vaccine for the current flu season.

Population: $\qquad$
Sample: $\qquad$
2. Determine whether the numerical value given in the following sentence is a parameter or a statistic, and explain your answer:
In a survey of 300 computer users, $8 \%$ said their computers had malfunctions that needed to be repaired by service technicians.
3. Determine whether the following data are qualitative or quantitative, and identify the data set's level of measurement (Nominal, Ordinal, Interval, or Ratio). Explain your answer:
The top five hardcover nonfiction books on The New York Times Best Seller List on January 19, 2010 are shown.

1. Committed
2. Have a Little Faith
3. The Checklist Manifesto
4. Going Rogue
5. Stones Into Schools
6. Which method of data collection (Observational study, Experiment, Simulation, or Survey) would be best to study how fast a virus would spread in a metropolitan area? Explain your answer.
7. Generate 5 random numbers between 1 and 99 using the following part of a table of random numbers:

9263078240192679545753497238943770879862
6. Finish the table for the given frequency distribution by adding the class midpoints, relative frequencies, and cumulative frequencies (Hint: The total number of observations is 365).

Cleveland, OH High Temperatures in ${ }^{\circ} \mathrm{F}$

| Class | Frequency, $f$ | Midpoint | Relative Frequency | Cumulative Frequency |
| :---: | :---: | :---: | :---: | :---: |
| $20-30$ | 19 |  |  |  |
| $31-41$ | 43 |  |  |  |
| $42-52$ | 68 |  |  |  |
| $53-63$ | 69 |  |  |  |
| $64-74$ | 74 |  |  |  |
| $75-85$ | 68 |  |  |  |
| $86-96$ | 24 |  |  |  |

