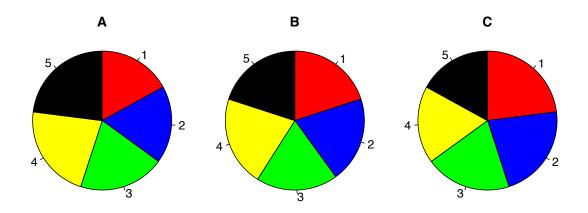
#### Types of Data

- 1. Which of the questions from the class survey have categorical/qualitative answers?
- 2. Which of the questions from the class survey have numerical/quantitative answers?

## Describing Categorical (Qualitative) Data

3. Use the following pie charts to rank the categories (1-5) by size.



4. Draw what you think the bar chart for "Birth Month" will look like.

5. Draw what you think the bar chart for "Major" will look like.

# Describing Numerical (Quantitative) Data

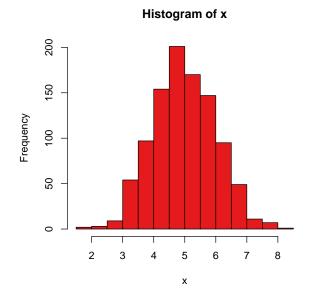
6. Draw what you think the histogram for "Expected Salary" will look like.

7. Draw what you think the histogram for "Dinners per Month" will look like.

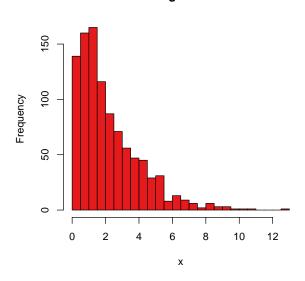
8. Draw what you think the histogram for "Pairs of Shoes" will look like.

# Measures of Central Tendency

- 9. Here are some histograms. Estimate the mean and median of the data.
  - (a) Symmetric and mound-shaped data.

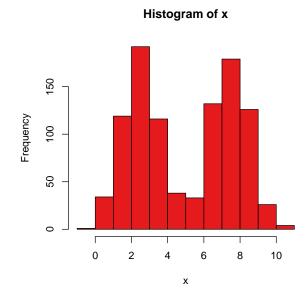


(b) Skewed data.



Histogram of x

#### (c) Bimodal data.



10. For the examples (a)–(c) of the previous problem, which is appropriate, the mean or the median?

## Percentiles

11. Find the quartiles of the following datasets: (a) 10, 10, 11, 11, 12, 13, 14, 14, 15, 17, 17, 18, 18, 18, 22, 23

 $(b) \ 5,7,8,8,8,8,9,10,11,13,13,19,19\\$