Name:

1. Construct a frequency distribution using the ages of 50 most powerful women listed below. Use seven classes.

55, 56, 57, 57, 57, 58, 58, 58, 59, 59, 59, 62, 62, 63, 64, 65, 65, 66, 66, 67, 67, 72, 86

- (a) State the number of classes.
- (b) Find the minimum and maximum data entries and the class width.
- (c) Find the class limits.
- (d) Tally the data entries.
- (e) Write the frequency f for each class.

- 2. Using the frequency distribution constructed in Problem 1, find the midpoint, relative frequency, and cumulative frequency of each class. Describe any patterns.
 - (a) Use the formulas to find each midpoint, relative frequency, and cumulative frequency.
 - (b) Organize your results in a frequency distribution.
 - (c) Describe any patterns in the data.

- 3. Use the frequency distribution in Problem 2 to construct a frequency histogram that represents the ages of the 50 most powerful women. Describe any patterns.
 - (a) Find the class boundaries.
 - (b) Choose appropriate horizontal and vertical scales.
 - (c) Use the frequency distribution to find the height of each bar.
 - (d) Describe any patterns in the data.

4. Use the frequency distribution in Problem 2 to construct a frequency polygon that represents the ages of 50 most powerful women.

5. Use the frequency distribution in Problem 2 to construct a relative frequency histogram that represents the ages of 50 most powerful women.

6. Use the frequency distribution in Problem 2 to construct a ogive that represents the ages of 50 most powerful women