

### Data set:

1. Decide on the number of classes to include in the frequency distribution. The number of classes should be between 5 and 20; otherwise, it may be difficult to detect any patterns. **In this class you will not have to decide on the number of classes. It will be given to you in the context of the problem.**

The number of classes is  $\frac{1}{2}n$ , as stated in the problem.

2. Find the class width as follows. Determine the range of the data, divide the range by the number of classes, and round up to the next convenient number.

$$\text{Class Width} = \frac{\text{Range}}{\text{Number of Classes}} = \frac{\text{Maximum Data Entry} - \text{Minimum Data Entry}}{\text{Number of Classes}}$$

The Minimum Data Entry is

The Maximum Data Entry is

The Range is \_\_\_\_\_

The class width is \_\_\_\_\_ (Don't forget to round up!)

3. Find the class limits. You can use the minimum data entry as the lower limit of the first class. To find the remaining lower limits, add the class width to the lower limit of the preceding class. Then find the upper limit of the first class. Remember that classes cannot overlap. Find the remaining upper class limits.

Lower Limits:

Upper Limits: \_\_\_\_\_

4. Make a tally mark for each data entry in the appropriate class.

5. The number of tally marks for a class is the frequency for that class.

Class	Tally	Frequency, $f$	Midpoint	Relative frequency	Cumulative frequency	Class boundaries