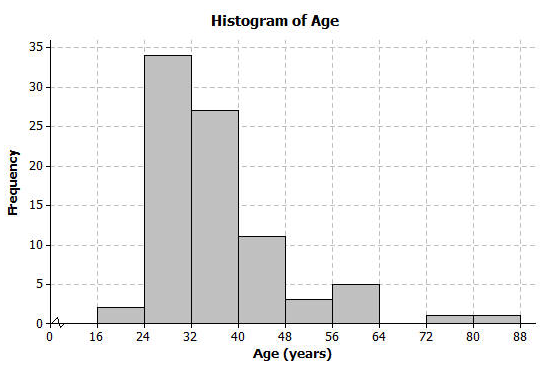
Lesson 4: Creating a Histogram

Problem Set

1. The following histogram shows ages of the actresses whose performances have won in the Best Leading Actress category at the annual Academy Awards (Oscars).
   1. Which age interval contains the most actresses? How many actresses are represented in that interval?
   2. Describe the shape of the histogram.
   3. What does the shape tell you about the ages of actresses who win the Oscar for best actress award?
   4. Which interval describes the center of the ages of the actresses?
   5. An age of would be included in which interval?
2. The frequency table below shows the seating capacity of arenas for NBA basketball teams

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| --- | --- | --- |
| Number of Seats | Tally | Frequency |
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* 1. Draw a histogram of the number of seats in NBA arenas. Use the histograms you have seen throughout this lesson to help you in the construction of your histogram.
  2. What is the width of each interval? How do you know?
  3. Describe the shape of the histogram.
  4. Which interval describes the center of the number of seats?

1. Listed are the grams of carbohydrates in hamburgers at selected fast food restaurants.  
   1. Complete the frequency table with intervals of width .

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| Number of Carbohydrates (grams) | Tally | Frequency |
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* 1. Draw a histogram of the carbohydrate data.
  2. Describe the center and shape of the histogram.
  3. In the frequency table below, the intervals are changed. Using the carbohydrate data above, complete the frequency table with intervals of width .

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| --- | --- | --- |
| Number of Carbohydrates (grams) | Tally | Frequency |
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* 1. Draw a histogram.

1. Use the histograms that you constructed in question 3 parts (b) and (e) to answer the following questions.
   1. Why are there fewer bars in the histogram in question 3 part (e) than the histogram in part (b)?
   2. Did the shape of the histogram in question 3 part (e) change from the shape of the histogram in part (b)?
   3. Did your estimate of the center change from the histogram in question 3 part (b) to the histogram in part (e)?