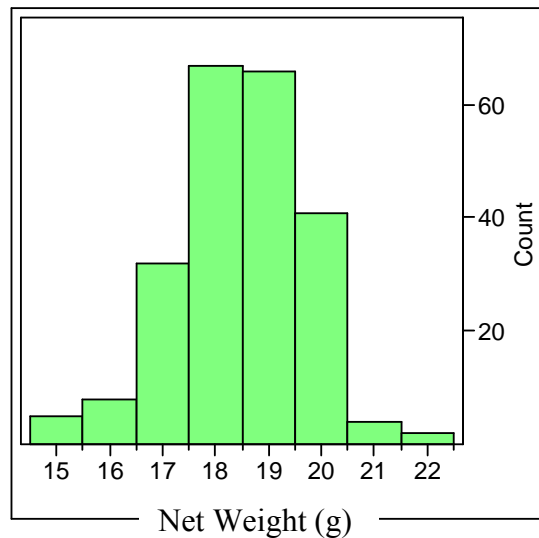


Stat 104 – Homework 6
Due Thursday October 30, 2008

Reading: October 14 – October 21 Chapter 6
 October 23 – October 30 Chapter 7

Assignment:

1. Complete the following problems from the text: 6.18, 6.38, 6.50, 6.52, 6.56 (a, b), 6.58, 6.94 and 6.96.
2. In lab 3, data on the weight of contents of Fun Size bags was collected. Below is a histogram of those net weights.



- a) Describe the shape of the histogram. Why is it reasonable to use a normal model for the distribution of the net weight of all Fun Size bags of M&M's?
- b) Use a normal model with $\mu = 18.5$ g, and $\sigma = 1.25$ g for the distribution of net weight of Fun Size bags of M&M's.
 - i. What is the probability that a Fun Size bag will have a net weight less than 16 g?
 - ii. What is the probability that a Fun Size bag will have a net weight greater than 22 g?
 - iii. What is the probability that a Fun Size bag will have a net weight between 17 and 20?
 - iv. We wish to label the Fun Size bag such that 97% of all Fun Size bags will contain at least the labeled weight. What should the label weight be?