

## Short Problem Set 2

In SPS01 you worked with a data set consisting of 30 1.69-oz bags of M&Ms for which the number of yellow M&Ms were reported as

23 15 16 16 18 7 17 8 16 17 13 23 13 10 8  
15 13 14 18 22 15 5 12 16 16 14 19 14 14 8

The experimental mean for this data set is 14.5 and the experimental standard deviation is 4.46. If we assume that these are good estimates for the true mean,  $\mu$ , and the true standard deviation,  $\sigma$ , then what is the probability that the number of yellow M&Ms in a single random sample is:

1. between 16 and 23
2. greater than 17
3. less than 13