# Basic Review Quiz (with Candy!)

Count the number of BROWN M&Ms in your sample \_\_\_\_\_\_\_\_\_.

Create a percentage of M&Ms in your sample \_\_\_\_\_\_\_\_ / total M&Ms\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_.

Collect other sample information from around the room:

1. Your sample = \_\_\_\_\_\_\_\_.

2.

3.

4.

5.

Count the number of RED M&Ms in your sample \_\_\_\_\_\_\_\_\_.

Create a percentage of M&Ms in your sample \_\_\_\_\_\_\_\_ / total M&Ms\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_.

Collect other sample information from around the room:

1. Your sample = \_\_\_\_\_\_\_\_.

2.

3.

4.

5.

FOR BROWN ONLY:

Now you have 5 “participants” of M&Ms.

What is the average percentage of M&Ms in a bag, given this 5 bag sample:\_\_\_\_\_\_\_\_\_\_.

What is the standard deviation of M&Ms in the sample: \_\_\_\_\_\_\_\_\_.

Z-score – If the average percentage is 30 and standard deviation is 15 – is your sample different (ONLY YOU)?

Z-test – if the average percentage is 30 and standard deviation is 15 – is your collection of 5 samples different (use the average of the 5)?

Single sample t-test – use SPSS to test if your 5 samples are different from an average of 30 percent.

FOR BOTH BROWN AND RED:

Dependent t-test – are there differences between samples of brown and red M&Ms (so put sample 1 brown together with sample 1 red)?

Independent t-test – recode the data so that the samples are assumed to be independent (no longer tied together – each number gets its own line). Is there a difference in brown and red M&Ms?