

# Quiz 10: Hypothesis Testing

Name:

While shopping for potatoes with my son, we weighed a sack of potatoes that was labeled at 5 pounds, and found that it weighed 6 pounds. We weighed two bags and found that they weighed 12 pounds together. We began to suspect that potatoes come in sacks that weigh more than 5 pounds (why might they?).

1. Describe a null and alternative hypothesis that would make sense for us to use in testing our theories.

2. Suppose that we collect data on the 40 sacks of potatoes in the super market, and discover that  $\bar{x} = 5.9$  pounds, with a sample standard deviation of .6 pounds. What do you think: would you be able to show (at the .05 significance level) that our suspicions are correct?