

Name:

Statistics

Date:

Practice Quiz 6-C

1. Mathematically, what is special about the estimate of sample size needed for a confidence interval when an estimate of $p = .50$ is used?

If p is .50 then q is also .50.

2. Lenora plans to count the number of Skittles in each 8-ounce bag, and to see what proportion of them are orange. Use $c = .90$.

a) If she uses 10 bags in her sample and $\sigma = 5.9$, what will be her margin of error for the number of Skittles per bag?

Use the formula for E .

b) Given $\sigma = 5.9$, how many bags should she count if she wants the margin of error for the number of Skittles per bag to be only 2.5?

This is for a mean.

c) If there are a total of 550 Skittles in her sample, what is the largest her margin of error can be for the proportion of orange Skittles?

See #1.

d) How many Skittles should she have in her sample if she wants the margin of error for the proportion of orange Skittles to be only 2.0%?

This is for a proportion.