Prob & Stats	Names:	
Application of Confidence Intervals 2	Date:	Period:

The company *Mr. Beans* is now expanding its product line and would like to begin distributing a new product containing a mixture of 4 different color beans for sale on the market. They wish to produce bags that contain an equal mixture of black, red, white and green beans. To do this another machine was ordered to handle the equal distribution of the four beans into containers. The machine was designed to create bags containing roughly 200 beans each.

1. As an inspector, you were given a random bag produced by the new machine. You open the bag and find that it contains 47 black(0.235), 52 white(0.26), 62 red(0.31), and 39 green(0.195) beans. Using the sampling distribution method, determine whether there is enough evidence to claim that the machine was functioning properly.

2. Because of a rise in red and white bean prices, Mr. Beans modified its 4-bean machine to no longer generate bags containing an equal proportion of bean colors. Specifically, they wanted a machine that produced bags containing a distribution of 30% black, 30% green, 20% red and 20% white. How would you modify your method to account for this new requirement?