

Finding the Cherry Starbursts

A bag of Starburst candies can be considered an SRS of the whole population of Starburst candies. Since there are 4 flavors, the probability that each Starburst is cherry flavor is $\frac{1}{4} = 0.25$. Each bag of Starburst contains 200 candies. Suppose we buy one bag of Starburst.

$X \rightarrow$ the number of cherry flavor Starburst candies in the bag

1. Is this a binomial distribution?
2. What is n ? _____ What is p ? _____
3. What is the mean of X ? _____ Interpret:
4. What is the standard deviation of X ? _____ Interpret:
5. What is the probability of getting exactly 60 cherry flavored starburst?
6. What is the probability of getting at most 60 cherry flavored starburst

Normal Approximation to the Binomial

Redo problem #6 above with a normal distribution. To do this $np \geq 10$ and $n(1-p) \geq 10$.