A 95% confidence interval obtained from a random sample of 1000 people has a better chance of containing the population mean than a 95% confidence interval obtained from a random sample of 500 people.

In their advertisements, a new diet program would like to claim that their program results in a mean weight loss (µ) of more than 10 pounds in two weeks. To determine if this is a valid claim, the makers of the diet should test the null hypothesis H0 : µ = 10 against the alternative hypothesis: (A) H1 : µ < 10 (B) H1 : µ > 10 (C) H1 : µ = 10 (D) H1 : µ = 0 (E) None of the above

Suppose now that a team has n wins and m losses. Assuming that all (n + m)!/

(n! m!)

orderings are equally likely, let us determine the probability

that there will be exactly r runs of wins.