

Your Name:

Duration of the Quiz is 25 minutes. There are four problems, worth 20 points, and an extra credit problem, worth 2 points. Show all your work for full credit. Books, notes etc. are prohibited.

1. Ten equally qualified marketing assistants are candidates for promotion to associate buyer; seven are men and three are women. If the company intends to promote four of the ten at random, what is the probability that exactly two of the four are women?

2. Suppose that n fair dice are rolled. What are the chances that all n faces will be the same?

3. Does a monkey have a better chance of rearranging

ACCLLUUS to spell CALCULUS or AABEGLR to spell ALGEBRA?

4. An urn contains twenty chips, numbered 1 through 20. Two are drawn simultaneously. What is the probability that the numbers on the two chips will differ by more than 2?

Extra Credit Problem (2 points) If the letters in the phrase

A ROLLING STONE GATHERS NO MOSS

are arranged at random, what are the chances that not all the S's will be adjacent?