

Student ID:

Name:

Section:

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### Problem 1

The correct sequence of four digits, each from 0 to 9, must be selected for a combination lock to unlock. Assume that exactly two of the digits in the correct sequence are the same (but we don't know which two). How many such 4-digit numbers are possible?



### Problem 2

From a committee of three males and four females, a subcommittee of three is to be randomly selected. Find the probability that it consists of one male and two females.

### **Problem 3**

How many different words can you form by rearranging the letters of the word MISSISSIPPI?