

King Fahd University of Petroleum and Minerals  
Department of Mathematics and Statistics  
Math 131- Test 2

**Exercise 1** *In how many ways can first, second, and third prizes be awarded in a contest with 400 contestants?*

**Exercise 2** *In how many ways can 7 students be seated in a row of 7 chairs if Jack insists on sitting in the first chair?*

**Exercise 3** *How many 2-letter words can be made from the letters MATH if*

*(i) repetition of letters is allowed?*

*(ii) repetition of letters is not allowed?*

**Exercise 4** *A computer password is required to be 8 characters long. How many passwords are possible if the password requires 1 letter(s) and 7 digits (numbers 0-9), where no repetition of any letter or digit is allowed?*