Homework Assignment #3
Permutation/Combination Calculator

Write a code of a program that computes the **combination** or **permutation** of two positive integer numbers n and r such that **n greater or equal to r**. The two functions are used in probability calculations. For more information, you can go to the following link: http://www.mathsisfun.com/combinatorics/combinations-permutations.html

The definitions of the functions are the following:
1) The permutation P(n,r)=n!/(n-r)! where **i! is factorial i**
2) The combination C(n,r)=n!/[r!*(n-r)!]

The program does the following tasks:
1) Read the values of n and r and make sure that n>=r.
2) Ask the user to select an option (Permutation: 1, Combination: 2).
3) Use the appropriate function given the selected option to perform the computation.

You have to code the following functions:
1) Function to return a positive integer value entered by the user (we will assume that the user is not entering decimal numbers)
2) Function to return the factorial of a positive integer number
3) Function to return the combination of two positive integer numbers
4) Function to return the permutation of two positive integer numbers

Remark:
1) The combination and permutation functions return positive integer numbers.
2) The order of the parameters counts. P(n,r) is different from P(r,n) and C(n,r) is different from C(r,n).
3) Save your work in **probability.cpp** file and submit it in **Homework 3 Assignments Submission** dropbox folder.
4) The howework is due **Sunday, September 28, 2014, 11:59 pm**