Problem:

Using passing by value or by reference, create the following four functions/procedures:

```
void displayMenu();
int largest(int a, int b, int c);
void mySort(int& a, int& b, int& c);
void myPermutation(int& a, int& b, int& c);
```

where `displayMenu` prints a list of options to the console, `largest` returns the largest value among three input integers, `mySort` sorts the three integers in ascending order, and `myPermutation` applies a permutation to the numbers (that is, a list of numbers `1 2 3` will become `3 1 2` after the function call).

Your main function should take in three integers from the user, and then continuously display a menu of options and call the corresponding function based on the user input until the user enters `Q` or `q`.

About:

- This permutation is just putting the last number to the front, not random.

- You may assume that the user always provides valid input.

- You may not use any library other than `<iostream>`.

A sample run of your code may look like:

```
Enter your three integer numbers:
3
5
4
================= MENU =================
1. Output the largest
2. Get the next permutation
3. Sort in ascending order
Enter your choice (1 - 3), Q to quit: 1

The largest number among the three is:  5

================= MENU =================
1. Output the largest
2. Get the next permutation
3. Sort in ascending order
Enter your choice (1 - 3), Q to quit: 3

After sorting: 3 4 5

================= MENU =================
```

```
1. Output the largest
2. Get the next permutation
3. Sort in ascending order
Enter your choice (1 - 3), Q to quit: 2

After one permutation: 5 3 4

================= MENU =================
1. Output the largest
2. Get the next permutation
3. Sort in ascending order
Enter your choice (1 - 3), Q to quit: 2

After one permutation: 4 5 3

================= MENU =================
1. Output the largest
2. Get the next permutation
3. Sort in ascending order
Enter your choice (1 - 3), Q to quit: Q

Exit the menu
```

Instructions for submission:

- Name your files exactly `hw5.cpp`.

- You may NOT use `#include "stdafx.h"`.

- Add code description in the comment at the beginning of the file. A sample description may look like:

  ```
  /*  PIC 10A 2A, Homework 1
      Purpose: miles to kilometers and feet converter
      Author: Hanqin Cai
      Date: 10/10/2018
  */
  ```

- Submit only `hw5.cpp` on BruinLearn.