Homework – Chapter 6 – Calculator:

50. Write a program which allows the user to perform simple tasks on a calculator. A series of functions allows the user to select an operation to perform and then enter operands.

The first function displays a menu, giving the user the choice of typing in any one of the following:

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+, -, *, /, or %        representing the usual arithmetic operators
   A                    representing the average of two numbers
   X                    representing the maximum of two numbers
   M                    representing the minimum of two numbers
   S                    representing the square of a number
   Q                    indicating the user wants to quit the program
```

The program reads the user's response into a variable of type <u>char</u>. Using a <u>switch</u> statement or a series of <u>if</u> statements, the program determines what function to call to process the user's request. For example, if the user enters **+, another function asks for two integers**. Then it finds the sum of the two integers. If the user enters **X**, a function asks for two integers and finds the larger of the two. If the user enters **S**, a function asks for one value and finds the square of that value. If the user enters **Q**, the program stops.

For each calculation performed, the program **(i.e., the function)** prints the user's original input and the result.