Problem 1: (Product of Three Digits)
Write a program that prompts users to enter a three-digit integer and calculate the product of three digits. Assume that users always enter a valid positive 3-digit integer. Your code should work for all three-digit integers (100 to 999). If the user enters 123, the following results appear on the console.

```
Input a three-digit number (100 - 999):
123
The one's digit is 3.
The ten's digit is 2.
The hundred's digit is 1.
The product of three digits is 6.
```

Problem 2: (Evaluation)
Write a program that prompts users to enter two integers and evaluate the following expression

$$\frac{\cos(x) + x^{-5}}{|y| + 1}$$

Assume that users always enter two valid integers without overflow issues, separated by an empty space. Print the evaluation to the console and keep four decimal digits. If the user enters 20 21[enter], the console shows exactly as follows

```
Input two integers:
20 21
The first number is equal to 20.
The second number is equal to 21.
The expression is equal to 0.0185.
```

Instructions:

- All code must be written originally by yourself. You are not allowed to (even partially) copy code from anyone else. Incident of cheating or plagiarism will be reported to the Dean's office and results in a zero grade in this assignment.

- (5pt) Write two programs to solve above questions. Name your files, `digits.cpp` and `evaluation.cpp`, and submit them to CCLE. You must name the files EXACTLY as instructed, otherwise 2.5 points will be deducted each.

- (5pt) Add declaration in the beginning of each cpp file to show the ownership. A sample description may look like:

```
/*
    PIC 10A Homework 1, digits.cpp
    Author: John Doe
    Date: 01/01/2021
*/
```

- (Problem 1 50pt & Problem 2 30pt) Code compiles with Visual Studio 2019 and solves the question. To receive full credits, the output must look exactly the same as instructed above, including words, spaces, symbols, etc. Students may lose the majority of points if their code doesn't compile with VS 2019. Students should test their work with Apporto virtual machines if they don't have Visual Studio 2019 available in their own computer. Please manually log out your account after using the virtual machine.
- (10pt) Write your code with good practice, including using descriptive variable names, using concise and descriptive comments, including 'return 0;' in the end of your int main function, etc.