Practice problems (if-statement and while loop):

#1. Write a complete C++ program ‘minOfTwo.cpp’ that finds a minimum of two integers.

Examples:
Enter two numbers: 4 6
The minimum is: 4
Enter two numbers: -1 -6
The minimum is: -6

Plan:

- Declare a variable where you want to store the minimum (say ‘min’)
- Declare two variables, ask a user to input two integers and save them into those variables
- Assume that first integer is a minimum and save it to a ‘min’ variable declared in step 1
- Write an if-statement that compares these two values and updates the variable from step 1 (there wont be any ‘else’ if you do it correctly)

#2. Using a while loop write a complete C++ program ‘countdown.cpp’ that does the following:

- It asks a user to enter a positive integer. If input is illegal, program terminates
- Otherwise it prints a countdown from the entered number up to 0.

Example:
Enter a positive number: 6
6 5 4 3 2 1 0
Enter a positive number: -5
Input is illegal, program is terminated.

Plan:

- Create a variable, ask user to enter an integer and save into that variable
- If number is not positive, exit the program, otherwise continue to the next step
- While the value of a variable is not 0, repeat:
  output value of a variable to the console;
  reduce the value of a variable by 1;
#3. Write a complete C++ program ‘digits.cpp’ that does the following:

- It asks a user to enter a positive integer;
- If input is illegal, the message “Too hard!” is printed and the program terminates;
- Otherwise the program prints all digits of a number starting from last one up to the first.

Here is an example of the output:
Enter a positive integer:
8956
The digits are: 6 5 9 8

Plan:

- Create a variable, ask user to enter an integer and save into that variable
- If number is not positive, exit the program, otherwise continue to the next step
- In a while statement (think about the appropriate condition statement) you will need to repeat the following:
  - output current last digit (think about mod operator)
  - reduce the number so that the last digit is now the second to the last (i.e. 8956 -> 895)