Lab 10: Program With Subroutine

Purposes

- Be familiar with the use of parameters and do-loop.
- Practice the basic design and use of subroutine.

Problems

Page 508, problem 17

Requirement

1. Complete the pre-lab exercises **before** you entering in the lab. Help is available during the tutoring hours and office hours.

2. In the lab time, follow the In-Lab instruction to finish the lab practice. Record the required information as lab report.

3. Demo your lab program for the instructor or the TA. Submit your pre-lab exercise and the lab report.

Pre-Lab Exercise

1. Analyze the problem and write down the specification of the problem, including the input and output.

What is the problem?	
What is the input information? How many variables needed to represent them? List the name and type for each variable.	
What is the output information? How many variables needed to represent them? List the name and type for each variable.	
Are there additional variables needed to solve the problem? List the name and type for each additional variable.	
Specify the input and output of the subroutine.	

2. What is the step-by-step procedure to solve this problem? Draw a flow chart to represent this procedure. You need draw a separate flow chart for the subroutine.

In-Lab Instruction

1. Create a new folder **lab10** in **CIS261**, use this folder to save files for this lab.

2. Implement the program coding.

3. Compile and execute the modified program, test it with three groups of input data, write down the input data and the output results in the table below.

	Input	Output
Test1		
Test2		
Test 3		