**TUTORIAL 3**

**Question 1**

Write a C program to calculate and print the sum of all multiples of 7 from 1 to 100. Use the *for* loop.

**Question 2**

Write a C program that continuously ask the user to enter two integer values and will only end when either one of the value is a negative value. Use the *do…while* loop.

**Question 3**

The factorial function is used frequently in probability problems. The factorial of a positive integer *n* (written *n!* and pronounced “*n* factorial”) is equal to the product of the positive integers from 1 to *n*. Write a C program that evaluates the factorials of the integers from 1 to 5.

**Question 4**

Write a C program that prints the following pattern that is based on the size entered by the user. Use *for* loops to generate the pattern.

Example:

Size: 3



Size: 6



**Question 5**

An online retailer sells five different product whose retail prices are shown in the following table:

|  |  |
| --- | --- |
| **Product Number** | **Retail Price** |
| 1 | $2.98 |
| 2 | $4.50 |
| 3 | $9.98 |
| 4 | $4.49 |
| 5 | $6.87 |

Write a C program that reads a series of pairs of numbers as follows:

1. Product number
2. Quantity sold for one day

Your program should use a *switch* statement to help determine the retail price for each product. Your program should calculate and display the total retail value of all products sold last week.

*Product number (-1 to end):* ***2***

*Quantity sold for one day:* ***5***

*Product number (-1 to end):* ***1***

*Quantity sold for one day:* ***3***

*Product number (-1 to end):* ***5***

*Quantity sold for one day:* ***12***

*Product number (-1 to end):* ***-1***

*The total retail value is $113.88*