**Software Sales**

A software company sells a package that retails for $99. Quantity discounts are given according to the following table:

**Quantity Discount**

10–19 10%

20–49 20%

50 or more 30%

Write a program that asks the user to enter the number of packages purchased. The program should then display the amount of the discount (if any) and the total amount of the purchase after the discount.

**Body Mass Index**

Write a program that calculates and displays a person’s body mass index (BMI). The BMI is often used to determine whether a person is overweight or underweight for his or her height. A person’s BMI is calculated with the following formula:

***BMI =* *weight \** 703/*height*2**

where *weight* is measured in pounds and *height* is measured in inches.

If you prefer kilograms and meters use this formula:

***BMI =* *weight* /*height*2**

The program should ask the user to enter his or her weight and height and the displays the user’s BMI.

A person’s weight is considered to be optimal if his or her BMI is between 18.5 and 25. If the BMI is less than 18.5. the person is considered to be underweight. If the BMI value is greater than 25, the person is considered to be overweight. The program should display a message indicating whether the person has optimal weight, is underweight, or is overweight. Also program should calculate and display the difference between the “ideal weight” and person’s weight.