HIT 265 C Programming – Tutorial 1

Question 1

Write a program that asks the user to enter two numbers, obtains the two numbers from the user and prints the sum, product, difference, quotient and remainder of the two numbers.

The screen dialog should appear as follows:
Enter two numbers: 20 5
The sum is 25
The product is 100
The difference is 15
The quotient is 4
The remainder is 0

Question 2

Write a program that asks the user to enter two integers, obtains the numbers from the user, then prints the larger number followed by the words "is larger." If the numbers are equal, print the message "These numbers are equal." Use only the single-selection form of the if statement.

The screen dialog should appear as follows:
Enter two numbers: 5 20
20 is larger
Enter two numbers: 239 92
239 is larger
Enter two numbers: 17 17
These numbers are equal

Question 3

Write a program that inputs three different integers from the keyboard, then prints the sum, the average, the product, the smallest and the largest of these numbers. Use only the single-selection form of the if statement.

The screen dialog should appear as follows:
Input three different integers: 13 27 14
Sum is 54
Average is 18
Product is 4914
Smallest is 13
Largest is 27

Question 4
(Body Mass Index Calculator) The formulas for calculating BMI are:

$$BMI = \frac{Weight}{Height^2}$$

Create a BMI calculator application that reads the user's weight, in kilograms, and height, in meters, then calculates and displays the user's body mass index. Also, the application should display the following information from the Department of Health and Human Services/National Institutes of Health so the user can evaluate his/her BMI:

BMI VALUES
Underweight: less than 18.5
Normal: between 18.5 and 24.9
Overweight: between 25 and 29.9
Obese: 30 or greater