Question1:

using System;

using System.Collections.Generic;

class Program

{

static void Main()

{

// Using student ID suffix 59

int studentIdSuffix = 59;

// Original input string

string input59 = "x:userinput; y:userinput; z:4; result: x \* y + z;";

Console.WriteLine("Original string:");

Console.WriteLine(input59);

Console.WriteLine();

// Extract variables and values

Dictionary<string, int> variables59 = new Dictionary<string, int>();

string[] parts59 = input59.Split(';');

foreach (string part in parts59)

{

string trimmed59 = part.Trim();

if (trimmed59.Contains(":"))

{

string[] keyValue59 = trimmed59.Split(':');

string key59 = keyValue59[0].Trim();

string value59 = keyValue59[1].Trim();

if (key59 == "x" || key59 == "y")

{

// For user input, we'll prompt for values

Console.Write($"Enter value for {key59}: ");

int userValue59 = int.Parse(Console.ReadLine());

variables59.Add(key59, userValue59);

}

else if (key59 == "z")

{

// Parse the hardcoded value

variables59.Add(key59, int.Parse(value59));

}

}

}

// Extract the operation

string operation59 = parts59[3].Split(':')[1].Trim();

// Perform the calculation

int x59 = variables59["x"];

int y59 = variables59["y"];

int z59 = variables59["z"];

int result59 = x59 \* y59 + z59;

// Display the variables and values

Console.WriteLine();

Console.WriteLine("Variables and values:");

foreach (var kvp in variables59)

{

Console.WriteLine($"{kvp.Key} = {kvp.Value}");

}

// Display the result

Console.WriteLine();

Console.WriteLine($"Result = {result59}");

}

}

**Output:**

