

Q1

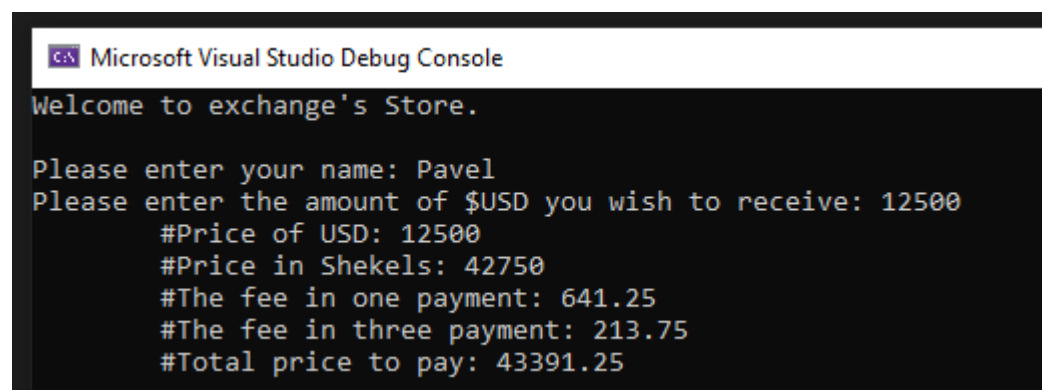
```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace HW1
{
    internal class Q1
    {
        static void Main(string[] args)
        {
            string name = "exchange", customer = "";
            const double rate = 3.42, commission = 0.015;
            uint amount = 0;
            double convertedAmount = 0, fee = 0, totalPrice = 0;
            Console.WriteLine($"Welcome to {name}'s Store.\n");
            Console.Write("Please enter your name: ");
            customer = Console.ReadLine();
            Console.Write("Please enter the amount of $USD you wish to receive:");

            amount = uint.Parse(Console.ReadLine());
            convertedAmount = amount * rate;
            fee = convertedAmount * commission;
            totalPrice = convertedAmount + fee;
            Console.WriteLine($"\\t#Price of USD: {amount}");
            Console.WriteLine($"\\t#Price in Shekels: {convertedAmount}");
            Console.WriteLine($"\\t#The fee in one payment: {fee:F2}");
            Console.WriteLine($"\\t#The fee in three payment: {fee/3:F2}");
            Console.WriteLine($"\\t#Total price to pay: {totalPrice:F2}");
        }
    }
}

```



Microsoft Visual Studio Debug Console

```

Welcome to exchange's Store.

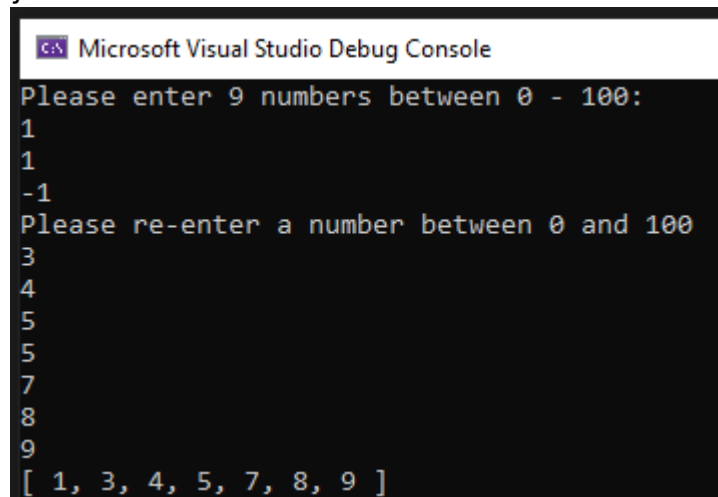
Please enter your name: Pavel
Please enter the amount of $USD you wish to receive: 12500
    #Price of USD: 12500
    #Price in Shekels: 42750
    #The fee in one payment: 641.25
    #The fee in three payment: 213.75
    #Total price to pay: 43391.25

```

Q2

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace HW1
{
    internal class Q2
    {
        static void Main(string[] args)
        {
            const int size = 9;
            int[] arr = new int[size];
            int[] arr2 = new int[size];
            Console.WriteLine("Please enter 9 numbers between 0 - 100:");
            for (int i = 0; i < arr.Length; i++)
            {
                arr[i] = int.Parse(Console.ReadLine());
                if (arr[i] < 0 || arr[i] > 100)
                {
                    Console.WriteLine("Please re-enter a number between 0 and
100");
                    i--;
                }
            }
            arr2 = arr.Distinct().ToArray();
            Console.Write("[ ");
            for (int i = 0; i < arr2.Length; i++)
            {
                if (i == arr2.Length-1)
                {
                    Console.Write(arr2[i] + " ");
                }
                else
                {
                    Console.Write(arr2[i] + ", ");
                }
            }
            Console.Write("]");
        }
    }
}
```



```
Microsoft Visual Studio Debug Console
Please enter 9 numbers between 0 - 100:
1
1
-1
Please re-enter a number between 0 and 100
3
4
5
5
7
8
9
[ 1, 3, 4, 5, 7, 8, 9 ]
```

Q3

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace HW1
{
    internal class Q3
    {
        static void Main(string[] args)
        {
            const int cols = 3;
            int rowCount = 0, index = 0;
            int[] arr = new int[] { -1, 0, 1, 2, -1, 4, -3, -4, 2 };
            for (int i = 0; i < arr.Length-2; i++)
            {
                for (int j = i+1; j < arr.Length-1; j++)
                {
                    for (int k = j+1; k < arr.Length; k++)
                    {
                        if(arr[i] + arr[j] + arr[k] == 0 && i != j && i != k && j
!= k)
                        {
                            rowCount++;
                        }
                    }
                }
            }
            int[,] newArr = new int[rowCount, cols];
            for (int i = 0; i < arr.Length - 2; i++)
            {
                for (int j = i + 1; j < arr.Length - 1; j++)
                {
                    for (int k = j + 1; k < arr.Length; k++)
                    {
                        if (arr[i] + arr[j] + arr[k] == 0 && i != j && i != k &&
j != k)
                        {
                            newArr[index, 0] = arr[i];
                            newArr[index, 1] = arr[j];
                            newArr[index, 2] = arr[k];
                            index++;
                        }
                    }
                }
            }
            for (int i = 0; i < newArr.GetLength(0); i++)
            {
                for (int j = 0; j < newArr.GetLength(1); j++)
                {
                    Console.Write($"{newArr[i, j]}\t");
                }
                Console.WriteLine();
            }
        }
    }
}
```

C# Microsoft Visual Studio Debug Console

```
-1      0      1
-1      2      -1
-1      -1     2
-1      4      -3
0       1      -1
0       4      -4
1       2      -3
1       -3     2
2       -4     2
-1      4      -3
```