1. Input 100 random numbers and count the odd and even numbers using **for** statement

using System;

class Program

{

public static void Main(string[] args)

{

int odd\_count = 0; //count of odd numbers

int even\_count = 0; //count of even numbers

int num; //number entered as input

for (int i = 1; i <= 100; i++) //i number of inputs

{

num = Convert.ToInt32(Console.ReadLine());

if (num % 2 != 0)

{

odd\_count++;

}

else

{

even\_count++;

}

}

Console.Write("The count of odd numbers out of 100 random numbers: {0}", odd\_count);

Console.Write("\nThe count of even numbers out of 100 random numbers: {0}", even\_count);

}

}

1. Input 100 random integer numbers (positive and negative) and sum the positive and negative numbers using **while** statement

using System;

class Program

{

public static void Main(string[] args)

{

int positive\_sum = 0; //sum of positive numbers

int negative\_sum = 0; //sum of negative numbers

int i = 1; //number of inputs

int num = 0;

//int num = Convert.ToInt32(Console.ReadLine());

while (i < 101)

{

num = Convert.ToInt32(Console.ReadLine());

if (num < 0)

{

negative\_sum += num;

}

else

{

positive\_sum += num;

}

i++;

}

Console.Write("The sum of positive numbers out of 10 random numbers: {0}", positive\_sum);

Console.Write("\nThe sum of negative numbers out of 10 random numbers: {0}", negative\_sum);

}

}

1. Output this series using **do while** statement:

1 2 4 8 16 ….1024

using System;

class Program

{

public static void Main(string[] args)

{

int num = 1;

do

{

Console.Write ("{0}\t",num);

num = num \* 2;

} while (num <= 1024);

}

}

1. Print this pattern using **for** statement:

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

using System;

class Program

{

public static void Main(string[] args)

{

int num = 5;

for (int i=1;i<=num;i++)

{

for (int j=1;j<=i; j++)

{

Console.Write("{0}\t",j);

}

Console.WriteLine("\n");

}

}

}

1. Sum this series using **while** statement:

3 5 7 …99

using System;

class Program

{

public static void Main(string[] args)

{

int sum = 0;

int num = 1;

while (num <= 97)

{

num = num + 2;

sum += num;

}

Console.WriteLine("Sum of series 3 5 7 ...99: {0}", sum);

}

}

1. Print this pattern using **for** statement:

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using System;

class Program

{

public static void Main(string[] args)

{

int n = 5;

for (int i=n; i >= 1; i--)

{

for (int j=1; j<=i; j++)

{

Console.Write("\*");

}

Console.WriteLine();

}

}

}

1. Calculate this series using **while** statement:

Y = 1/x2 + 2/x3 + 3/x4 + …+ n/xn+1

using System;

class Program

{

public static void Main(string[] args)

{

double x\_value;

int y\_value;

int i=1;

double sum = 0.00;

double mark;

Console.Write("Enter value of x:\t");

x\_value = Convert.ToDouble(Console.ReadLine());

Console.Write("Enter value of n:\t");

y\_value = Convert.ToInt32(Console.ReadLine());

while (i < y\_value + 1)

{

mark = i/Math.Pow(x\_value, i+1);

sum += mark;

i++;

}

Console.WriteLine("Y= {0:0.000}",sum);

}

}