**Лабораторная работа №3**

**Код:**

using System;

using System.Diagnostics;

namespace Test\_2

{

class MainClass

{

public static void Main(string[] args)

{

First();

Second();

Third();

Fourth();

Fifth();

}

public static void First()

{

Console.WriteLine("--------------------------");

for (int i = -41; i < 500; i += 9)

{

Console.WriteLine(i + " ");

}

}

public static void Second()

{

Console.WriteLine("--------------------------");

double x = Convert.ToDouble(Console.ReadLine());

double result = 0;

if (x >= 1)

{

result = Math.Sqrt(Math.Pow(x, 14) + Math.Sin(19 \* x));

}

else if (x <= 1)

{

result = (18 \* Math.Pow(Math.Pow(x, 90) - 9000, 0)) / (Math.Sqrt(Math.Pow(x, 20) + 2 \* Math.Pow(x, 18) + 1));

}

else

{

result = (Math.Tan(90 + x) \* Math.Pow(Math.Tan(90 + x), -1)) / (3 \* Math.Pow(x, 21) + 2 \* Math.Pow(x, 19) + 1);

}

Console.WriteLine("Result = " + result);

}

public static void Third()

{

Console.WriteLine("--------------------------");

double result = 0;

double n = Convert.ToDouble(Console.ReadLine());

for (double i = 1; i <= n; i++)

{

result += 1 / (9 \* i);

}

Console.WriteLine("Result = " + result);

}

public static void Fourth()

{

Console.WriteLine("--------------------------");

int a = Convert.ToInt32(Console.ReadLine());

int b = Convert.ToInt32(Console.ReadLine());

if (a > b)

{

int temp = a;

a = b;

b = temp;

}

int result = 0;

for (int i = a; i <= b; i++)

{

if ((i % 2) != 0)

{

result += i;

}

}

Console.WriteLine("Result = " + result);

}

public static void Fifth()

{

Console.WriteLine("--------------------------");

int x = Convert.ToInt32(Console.ReadLine());

int count = 0;

double sum = 0;

while (x != 9)

{

sum += x;

count++;

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

}

Console.WriteLine("Кол-во чисел = {0}\nСумма чисел = {1}\nСреднее арифметическое = {2}", count, sum, (sum / count));

}

}

}

**Скриншоты:**



