1 завдання

using System;

using static System.Console;

namespace ConsoleApp66

{

class Program

{

static void Main(string[] args)

{

double x, y, z, a,b;

Write("x = "); x = Convert.ToDouble(ReadLine());

Write("y = "); y = Convert.ToDouble(ReadLine());

Write("z = "); z = Convert.ToDouble(ReadLine());

a = (Math.Log10(Math.Abs(x + z)) / (1 + (Math.Log10(Math.Abs(y - x))/Math.Log10(Math.E )/ 2.0))) + 2 \* y;

b = Math.Log10(a + z)/Math.Log10(Math.E) / (a \* a) + Math.Pow(x, -1.0 \* a);

WriteLine( a);

WriteLine( b);

}

}

}

Завдання 2

using System;

using static System.Console;

using static System.Math;

namespace ConsoleApp1

{

class Program

{

static void Main(string[] args)

{

long n;

bool Mersen\_flag;

long i, j;

n = 1000000;

for (i = 2; i < n; i++)

{

bool flag\_Prime = true;

for (j = 2; j <= Sqrt(i); j++)

if (i % j == 0)

{

flag\_Prime = !flag\_Prime;

break;

}

if (flag\_Prime)

{

double p\_log = Log(i + 1, 2);

bool long\_Log = Abs(Round(p\_log) - p\_log) < 1.0E-8;

if (long\_Log)

{

long P = (long)Round(p\_log);

Mersen\_flag = true;

for (j = 2; j <= Sqrt(P); j++)

if (P % j == 0)

{

Mersen\_flag = !Mersen\_flag;

break;

}

if (Mersen\_flag)

WriteLine("2^" + P.ToString() + "-1 = " + i.ToString());

}

}

}

}

}

}