﻿using System;

using Microsoft.VisualStudio.TestTools.UnitTesting;

using SecurityLibrary.ElGamal;

using System.Collections.Generic;

namespace SecurityPackageTest

{

[TestClass]

public class ElGamalTest

{

[TestMethod]

public void ElGamalEnc1()

{

ElGamal algorithm = new ElGamal();

List<long> cipher = algorithm.Encrypt(7187, 4842, 4464, 19, 19);//191

Assert.AreEqual(cipher[0], 2781);

Assert.AreEqual(cipher[1], 437);

}

[TestMethod]

public void ElGamalEnc2()

{

ElGamal algorithm = new ElGamal();

List<long> cipher = algorithm.Encrypt(6323, 4736, 2231, 58, 111);//118

Assert.AreEqual(cipher[0], 6066);

Assert.AreEqual(cipher[1], 899);

}

[TestMethod]

public void ElGamalDec1()

{

ElGamal algorithm = new ElGamal();

int plain = algorithm.Decrypt(2781, 437, 191, 7187);

Assert.AreEqual(plain, 19);

}

[TestMethod]

public void ElGamalDec2()

{

ElGamal algorithm = new ElGamal();

int plain = algorithm.Decrypt(6066, 899, 118, 6323);

Assert.AreEqual(plain, 111);

}

}

}