

Detyra te shtepise

Hyrje ne Struktura e te te Dhenave

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Viti I-Grupi II

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1.Write a program that reads from the console three numbers of type int and prints their sum.

using System;

namespace ConsoleApp1

{

class Program

{

static void Main(string[] args)

{

int a, b, c;

Console.Write("Enter the first number a:");

bool isaInt = int.TryParse(Console.ReadLine(), out a);

Console.Write("Enter the second number b:");

bool isbInt = int.TryParse(Console.ReadLine(), out b);

Console.Write("Enter the third number c:");

bool iscInt = int.TryParse(Console.ReadLine(), out c);

if (isaInt & isbInt & iscInt)

{

Console.WriteLine("sum={0}", a + b + c);

}

else

{

Console.WriteLine("Not a valid entry! Some of the numbers are not integer!");

}

}

}

}

2.Write a program that reads from the console the radius “r” of a circle and prints it’s a perimeter and area.

using System;

namespace ConsoleApp2

{

class Program

{

static void Main(string[] args)

{

double r;

Console.Write("Enter the radius r:");

bool isrInt = double.TryParse(Console.ReadLine(), out r);

if (isrInt)

{

Console.WriteLine("Perimeter={0}", 2 \* Math.PI \* r);

Console.WriteLine("Area={0}", Math.PI \* r \* r);

}

else

{

Console.WriteLine("Not a valid entry! r is not integer!");

}

}

}

}

3.A given company has name,address,phone number,fax number,web site and manager.The manager has name surname and phone number.Write a program that reads information about the company and its manager and then prints it on the console.

using System;

namespace ConsoleApp3

{

class Program

{

static void Main()

{

string companyName, address, phoneNumber, faxNumber, webSite, managerFirstName, managerLastName, managerPhoneNumber;

byte managerAge;

Console.Write("Enter the name of the company:");

companyName = Console.ReadLine();

Console.Write("Enter the address of the company:");

address = Console.ReadLine();

Console.Write("Enter the phone number of the company:");

phoneNumber = Console.ReadLine();

Console.Write("Enter the fax number of the company:");

faxNumber = Console.ReadLine();

Console.Write("Enter the web site of the company:");

webSite = Console.ReadLine();

Console.Write("Enter the first name of the manager:");

managerFirstName = Console.ReadLine();

Console.Write("Enter the last name of the manager:");

managerLastName = Console.ReadLine();

Console.Write("Enter the age of the manager:");

bool isAgeByte = byte.TryParse(Console.ReadLine(), out managerAge);

Console.Write("Enter the phone number of the manager:");

managerPhoneNumber = Console.ReadLine();

if (isAgeByte)

{

Console.WriteLine();

Console.WriteLine("Company name:".PadRight(23, ' ') + "{0,30}".PadRight(30, ' '), companyName);

Console.WriteLine("Address:".PadRight(23, ' ') + "{0,30}".PadRight(30, ' '), address);

Console.WriteLine("Phone number:".PadRight(23, ' ') + "{0,30}".PadRight(30, ' '), phoneNumber);

Console.WriteLine("Fax number:".PadRight(23, ' ') + "{0,30}".PadRight(30, ' '), faxNumber);

Console.WriteLine("Web site:".PadRight(23, ' ') + "{0,30}".PadRight(30, ' '), webSite);

Console.WriteLine("Manager:".PadRight(23, ' ') + "{0,30}".PadRight(30, ' '), managerFirstName + " " + managerLastName);

Console.WriteLine("Manager's age:".PadRight(23, ' ') + "{0,30}".PadRight(30, ' '), managerAge);

Console.WriteLine("Manager's phone number:".PadRight(23, ' ') + "{0,30}".PadRight(30, ' '), managerPhoneNumber);

}

else

{

Console.WriteLine("Not a valid entry! Manager's age is not a byte number!");

}

}

}

}

4.Write a program that prints the numbers in three virtual columns on the console.Each column should have a width of 10 characetrs and the numbers should be left aligned.The first number should be an integer in hexadecimal; the second should be fractional positive; and the third – a negative fraction.The last two numbers have to be rounded to the second decimal place.

using System;

namespace ConsoleApp4

{

class Program

{

static void Main(string[] args)

{

int hexNum = 2015;

Console.WriteLine("|0x{0,-8:X|", hexNum);

double fractNum = -1.856;

Console.WriteLine("|0,-10:f2}|", fractNum);

}

}

}

5.Write a program that reads from the console two integer numbers(int) and prints how many numbers between them exist,such that the remainder of their division by 5 is 0.Example: in the range(14,25)there are 3 such numbers:15,20 and 25.

using System;

namespace ConsoleApp5

{

class Program

{

static void Main(string[] args)

{

int counter = 0;

Console.Write("Enter first number: ");

int a = Int32.Parse(Console.ReadLine());

Console.Write("Enter second number: ");

int b = Int32.Parse(Console.ReadLine());

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

{

if (i % 5 == 0) counter++;

}

Console.WriteLine("{0} numbers found.", counter);

}

}

}

6.Write a program that reads two numbers from the console and prints the greater of them.Solve the problem without using conditional statements.

using System;

namespace ConsoleApp6

{

class Program

{

static void Main(string[] args)

{

Console.Write("Enter first number: ");

int a = Int32.Parse(Console.ReadLine());

Console.Write("Enter second number: ");

int b = Int32.Parse(Console.ReadLine());

Console.WriteLine("{0} >= {1}", Math.Min(a, b));

}

}

}

7.Write a program that reads five integer numbers and prints their sum.If an invalid number is entered the program should prompt the user to enter another number.

using System;

namespace ConsoleApp7

{

class Program

{

static void Main(string[] args)

{

int a, b, c, d, e;

bool parseSucceed = false;

do

{

Console.Write("Enter first number");

parseSucceed = Int32.TryParse(Console.ReadLine(), out a);

Console.WriteLine(parseSucceed);

} while (!parseSucceed);

do

{

Console.Write("Enter second number");

parseSucceed = Int32.TryParse(Console.ReadLine(), out b);

Console.WriteLine(parseSucceed);

} while (!parseSucceed);

do

{

Console.Write("Enter third number");

parseSucceed = Int32.TryParse(Console.ReadLine(), out c);

Console.WriteLine(parseSucceed);

} while (!parseSucceed);

do

{

Console.Write("Enter fourth number");

parseSucceed = Int32.TryParse(Console.ReadLine(), out d);

Console.WriteLine(parseSucceed);

} while (!parseSucceed);

do

{

Console.Write("Enter fifth number");

parseSucceed = Int32.TryParse(Console.ReadLine(), out e);

Console.WriteLine(parseSucceed);

} while (!parseSucceed);

} } }

8.Write a program that reads five numbers from the console and prints the greatest of them.

using System;

namespace ConsoleApp8

{

class Program

{

static void Main(string[] args)

{

Console.Write("Enter first number");

int a = Int32.Parse(Console.ReadLine());

Console.Write("Enter second number");

int b = Int32.Parse(Console.ReadLine());

Console.Write("Enter third number");

int c = Int32.Parse(Console.ReadLine());

Console.Write("Enter fourth number");

int d = Int32.Parse(Console.ReadLine());

Console.Write("Enter fifth number");

int e = Int32.Parse(Console.ReadLine());

if (a > b && a > c && a > d && a > e) Console.WriteLine("{0} is the biggest.", a);

else if (b > a && b > c && b > d && b > e) Console.WriteLine("{0} is the biggest.", b);

else if (c > a && c > b && c > d && c > e) Console.WriteLine("{0} is the biggest.", c);

else if (d > a && d > b && d > c && d > e) Console.WriteLine("{0} is the biggest.", d);

else if (e > a && e > b && e > c && e > d) Console.WriteLine("{0} is the biggest.", e);

else Console.WriteLine("There isn't a biggest number.");

}

}

}

9.Write a program that reads an integer number n from the console.After that reads n numbers from the console and prints their sum.

using System;

namespace ConsoleApp9

{

class Program

{

static void Main(string[] args)

{

double d, x1, x2;

Console.Write("Enter A (A != 0): ");

double a = Int32.Parse(Console.ReadLine());

Console.Write("Enter B: ");

double b = Int32.Parse(Console.ReadLine());

Console.Write("Enter C: ");

double c = Int32.Parse(Console.ReadLine());

d = b \* b - 4 \* a \* c;

if (d < 0) Console.WriteLine("D={0}, There are no real roots.", d);

else if (d == 0)

{

x1 = (-b / (2 \* a));

Console.WriteLine("X={0}", x1);

}

else

{

x1 = (-b + Math.Sqrt(d)) / (2 \* a);

x2 = (-b - Math.Sqrt(d)) / (2 \* a);

Console.WriteLine("X1={0}, X2={1}", x1, x2);

}

}

}

}

10.Write a program that reads an integer number n from the console and prints all numbers in the range[1..n], each on a separate line.

using System;

namespace ConsoleApp10

{

class Program

{

static void Main(string[] args)

{

int n;

Console.Write("Enter the first number n:");

bool isnInt = int.TryParse(Console.ReadLine(), out n);

if (isnInt)

{

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

{

Console.WriteLine(i);

}

}

else

{

Console.WriteLine("Not a valid entry! n is not an integer!");

}

}

}

}

11.Write a program that prints on the console the first 100 numbers in the Fibonacci sequence:0,1,1,2,3,5,8,13,23,34,55,89,144,233…

using System;

namespace ConsoleApp11

{

class Program

{

static void Main()

{

BigInteger newElement;

BigInteger[] sequenceMembers = { 0, 1 };

Console.Write("{0},\n{1},\n", sequenceMembers[0], sequenceMembers[1]);

for (int i = 0; i < 98; i++)

{

newElement = sequenceMembers[0] + sequenceMembers[1];

Console.WriteLine("{0},", newElement);

sequenceMembers[0] = sequenceMembers[1];

sequenceMembers[1] = newElement;

}

}

}

}

12.Write a program that calculates the sum(with precision of 0.001)of the following sequence: 1+1/2 -1/3 + ¼ -1/5 + …

using System;

namespace ConsoleApp12

{

class Program

{

static void Main(string[] args)

{

float i = 2;

float newMembre;

float sum = 1;

do

{

if (i % 2 == 0)

{

newMembre = 1 / i;

}

else

{

newMembre = -1 / i;

}

i++;

sum = sum + newMembre;

} while (Math.Abs(newMembre) > 0.0001f);

Console.WriteLine("sum={0:F3}", sum);

}

}

}