# Chapter 11

## Gerti Gonxhi

1.

﻿using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace Detyra\_1

{

class LeapYearTask1

{

static void Main(string[] args)

{

Console.Write("Write a year: " );

int year = int.Parse(Console.ReadLine());

if (year > 0)

{

if (DateTime.IsLeapYear(year)) Console.WriteLine("{0} is leap year", year);

else Console.WriteLine("{0} is not a leap year", year);

}

else Console.WriteLine("Incorrect year");

}

}

}

2.

﻿using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace Detyra\_2

{

class RandomNumbersTask2

{

static void Main(string[] args)

{

int randomNumber = 0;

int counter = 0;

Random rndGenerator = new Random();

do

{

counter++;

randomNumber = rndGenerator.Next(100, 201);

Console.WriteLine(randomNumber);

} while (counter != 10);

}

}

}

3.

﻿using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace Detyra\_3

{

class TodayTask3

{

static void Main(string[] args)

{

DateTime dateValue = DateTime.Today;

Console.Write("Today is: ");

switch ((int)dateValue.DayOfWeek)

{

case 1:

Console.WriteLine("Monday");

break;

case 2:

Console.WriteLine("Tuesday");

break;

case 3:

Console.WriteLine("Wednesday");

break;

case 4:

Console.WriteLine("Thursday");

break;

case 5:

Console.WriteLine("Friday");

break;

case 6:

Console.WriteLine("Saturday");

break;

case 7:

Console.WriteLine("Sunday");

break;

}

}

}

}

6.

﻿using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace Detyra\_6

{

class ClassTriangleTask6

{

class Triangle

{

double x, y, z, surface;

double altitude;

double angle;

public Triangle(double x, double altitude)

{

this.x = x;

this.altitude = altitude;

this.surface = (x \* altitude) / 2;

}

public Triangle(string x, string y, string z)

{

this.x = double.Parse(x);

this.y = double.Parse(y);

this.z = double.Parse(z);

this.surface = (this.x + this.y + this.z) / 2;

}

public Triangle(double x, double y, double angle)

{

this.x = x;

this.y = y;

this.angle = Math.Sin(angle);

this.surface = (this.angle \* x \* y) / 2;

}

public void printSurface()

{

Console.WriteLine(surface);

}

}

static void CalculateResult()

{

char choice = (char)Console.ReadLine()[0];

switch (choice)

{

case 'a':

case 'A':

{

Console.WriteLine("Input three sides:");

string sideA = Console.ReadLine();

string sideB = Console.ReadLine();

string sideC = Console.ReadLine();

Triangle obj2 = new Triangle(sideA, sideB, sideC);

obj2.printSurface();

}

break;

case 'b':

case 'B':

{

Console.WriteLine("Input a side and its altitude:");

double sideA = double.Parse(Console.ReadLine());

double altitudeA = double.Parse(Console.ReadLine());

Triangle obj1 = new Triangle(sideA, altitudeA);

obj1.printSurface();

}

break;

case 'c':

case 'C':

{

Console.WriteLine("Input two sides and angle (in degrees) between:");

double sideA = double.Parse(Console.ReadLine());

double sideB = double.Parse(Console.ReadLine());

double angleDegree = double.Parse(Console.ReadLine());

Triangle obj3 = new Triangle(sideA, sideB, angleDegree);

obj3.printSurface();

}

break;

}

}

static void Main(string[] args)

{

Console.WriteLine("Choose the way you want to calculate the triangle's surface");

Console.WriteLine("A) Three sides. \nB) Side and its altitude. \nC) Two sides and the angle (in degrees) between.");

CalculateResult();

}

}

10.

﻿using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace Detyra\_10

{

class Sum

{

string numbers;

int sum;

public Sum(string numbers)

{

this.numbers = numbers;

}

public int calculate()

{

string[] split = numbers.Split(new Char[] { ' ' });

foreach (string s in split)

{

if (s.Trim() != "")

{

sum += int.Parse(s);

}

}

return sum;

}

}

class Program

{

static void Main(string[] args)

{

Console.Write("Write a number: ");

Sum ob1 = new Sum(Console.ReadLine());

Console.WriteLine(ob1.calculate());

Console.WriteLine("It is tested whether it correctly collects positive numbers, negative numbers, identical numbers with different signs.");

}

}

}