1.    Write an **if**-statement that takes two integer variables and **exchanges** their values if the first one is greater than the second one.

using System;

namespace Detyra1

{

class Program

{

static void Main(string[] args)

{

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

int num1 = Int32.Parse(Console.ReadLine());

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

int num2 = Int32.Parse(Console.ReadLine());

if(num1 < num2)

{

num1 = num2;

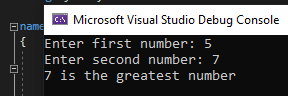
}

Console.WriteLine("{0} is the greatest number", num1);

}

}

}



2.    Write a program that shows the sign (**+** or **-**) of the product of three real numbers, without calculating it. Use a sequence of **if** operators.

using System;

namespace Detyra2

{

class Program

{

static void Main()

{

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());

if (a < 0 && b < 0 && c < 0) Console.WriteLine("-");

else if (a >= 0 && b >= 0 && c >= 0) Console.WriteLine("+");

else if (a < 0 && b < 0 && c >= 0) Console.WriteLine("+");

else if (a < 0 && b >= 0 && c < 0) Console.WriteLine("+");

else if (a >= 0 && b < 0 && c < 0) Console.WriteLine("+");

else if (a < 0 && b >= 0 && c >= 0) Console.WriteLine("-");

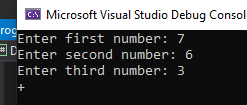
else if (a >= 0 && b < 0 && c >= 0) Console.WriteLine("-");

else if (a >= 0 && b >= 0 && c < 0) Console.WriteLine("-");

}

}

}



3.    Write a program that finds the **biggest of three integers**, using nested **if** statements.

using System;

namespace Detyra3

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter the first number: ");

int num1 = Int32.Parse(Console.ReadLine());

Console.WriteLine("Enter the second number: ");

int num2 = Int32.Parse(Console.ReadLine());

Console.WriteLine("Enter the third number: ");

int num3 = Int32.Parse(Console.ReadLine());

if (num1 > num2)

if (num1 > num3) Console.WriteLine("Numri i pare eshte me i madh");

else if (num1 < num3) Console.WriteLine("Numri i tret eshte me i madh");

else Console.WriteLine("numri i pare dhe i tret jane me te medhenjte");

else if (num1 < num2)

{

if (num2 > num3) Console.WriteLine("Numri i dyte eshte me i madhi");

else if (num2 < num3) Console.WriteLine("Numri i tret eshte me i madhi");

else Console.WriteLine("Numri i dyte dhe numri i tret jane me te

medhenjte");

}

else if (num1 == num2)

{

if (num1 == num3) Console.WriteLine("Te gjithe jane te barabarte");

else if (num1 < num3) Console.WriteLine("Numri i tret eshte me i madhi");

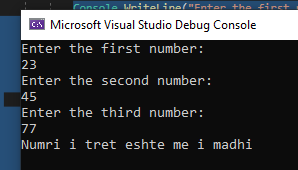
else Console.WriteLine("numri i pare dhe numri i dyte jane me te

medhenjte");

} }

}

}



4.    **Sort 3 real numbers** in descending order. Use nested **if** statements.

using System;

namespace Detyra4

{

class Program

{

static void Main()

{

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

int num1 = Int32.Parse(Console.ReadLine());

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

int num2 = Int32.Parse(Console.ReadLine());

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

int num3 = Int32.Parse(Console.ReadLine());

if(num1 > num2 && num1 > num3)

{

if (num2 > num3)

{

Console.WriteLine("Here are the order numbers: {0} {1} {2}",

num1, num2, num3);

}

else

{

Console.WriteLine("Here are the order numbers: {0} {1} {2}",

num1, num3, num2);

}

}

else if(num2 > num1 && num2 > num3)

{

if(num1 > num3)

{

Console.WriteLine("Here are the order numbers: {0} {1} {2}",

num2, num1, num3);

}

else

{

Console.WriteLine("Here are the order numbers: {0} {1} {2}",

num2, num3, num1);

}

}

else if (num3 > num1 && num3 > num2)

{

if(num1 > num2)

{

Console.WriteLine("Here are the order numbers: {0} {1} {2}",

num3, num1, num2);

}

else

{

Console.WriteLine("Here are the order numbers: {0} {1} {2}",

num3, num2, num1);

}

}else if (num1 == num2 && num1 == num3)

{

if(num2 == num3)

{

Console.WriteLine("Here are the order number: {0} {1} {2}",

num1, num2, num3);

}

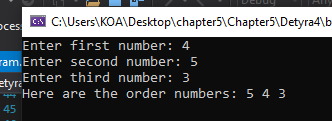
}

Console.ReadKey();

}

}

}



5.    Write a program that asks for a digit (0-9), and depending on the input, **shows the digit as a word** (in English). Use a **switch** statement.

using System;

namespace Detyra5

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter a number from 0-9: ");

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

switch (num)

{

case 0:

Console.WriteLine("zero");

break;

case 1:

Console.WriteLine("one");

break;

case 2:

Console.WriteLine("two");

break;

case 3:

Console.WriteLine("three");

break;

case 4:

Console.WriteLine("four");

break;

case 5:

Console.WriteLine("five");

break;

case 6:

Console.WriteLine("six");

break;

case 7:

Console.WriteLine("seven");

break;

case 8:

Console.WriteLine("eight");

break;

case 9:

Console.WriteLine("nine");

break;

default:

Console.WriteLine("Wrong inout");

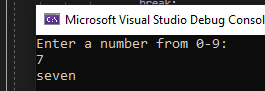
break;

}

}

}

}



6.    Write a program that gets the coefficients ***a***, ***b*** and ***c*** of a quadratic equation: ***a*x2** **+** ***b*x** **+** ***c***, calculates and prints its real roots (if they exist). Quadratic equations may have 0, 1 or 2 real roots.

using System;

namespace Detyra6

{

class Program

{

public static void Main()

{

int a, b, c;

double d, x1, x2;

Console.Write("\n\n");

Console.Write("Calculate root of Quadratic Equation :\n");

Console.Write("----------------------------------------");

Console.Write("\n\n");

Console.Write("Input the value of a : ");

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

Console.Write("Input the value of b : ");

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

Console.Write("Input the value of c : ");

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

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

if (d == 0)

{

Console.Write("Both roots are equal.\n");

x1 = -b / (2.0 \* a);

x2 = x1;

Console.Write("First Root Root1= {0}\n", x1);

Console.Write("Second Root Root2= {0}\n", x2);

}

else if (d > 0)

{

Console.Write("Both roots are real and diff-2\n");

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

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

Console.Write("First Root Root1= {0}\n", x1);

Console.Write("Second Root root2= {0}\n", x2);

}

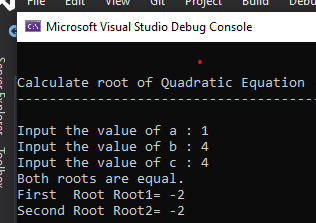
else

Console.Write("Root are imaginary");

}

}

}



7.    Write a program that finds the **greatest of given 5 numbers**.

using System;

namespace detyra7

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Declare five different numbers to see which is the greatest!!!");

Console.Write("\nDeclare number 1: ");

int num1 = Int32.Parse(Console.ReadLine());

Console.Write("\nDeclare number 2: ");

int num2 = Int32.Parse(Console.ReadLine());

Console.Write("\nDeclare number 3: ");

int num3 = Int32.Parse(Console.ReadLine());

Console.Write("\nDeclare number 4: ");

int num4 = Int32.Parse(Console.ReadLine());

Console.Write("\nDeclare number 5: ");

int num5 = Int32.Parse(Console.ReadLine());

if(num1 < num2)

{

num1 = num2;

}

if (num1 < num3)

{

num1 = num3;

}

if(num1 < num4)

{

num1 = num4;

}

if(num1 < num5)

{

num1 = num5;

}

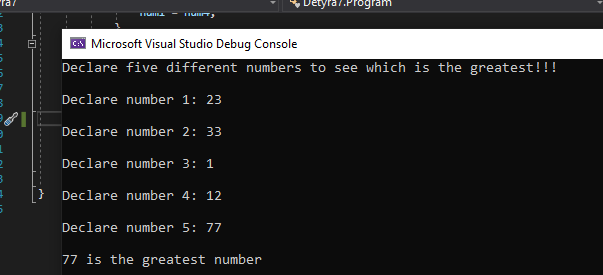
Console.WriteLine("\n{0} is the greatest number", num1);

Console.ReadKey();

}

}

}



8.    Write a program that, depending on the user’s choice, inputs **int**, **double** or **string** variable. If the variable is **int** or **double**, the program increases it by 1. If the variable is a **string**, the program appends "**\***" at the end. Print the result at the console. Use **switch** statement.

using System;

namespace Detyra8

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter variable type (0 - int, 1 - double, 2 - string): ");

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

switch (numri)

{

case 0:

{

Console.WriteLine("Enter int variable: ");

numri = Int32.Parse(Console.ReadLine());

numri++;

Console.WriteLine(numri);

break;

}

case 1:

{

Console.WriteLine("Enter double variable: ");

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

doubleVar++;

Console.WriteLine(doubleVar);

break;

}

case 2:

{

Console.WriteLine("Enter string variable: ");

string stringVar = Console.ReadLine();

stringVar = stringVar + "\*";

Console.WriteLine(stringVar);

break;

}

default: Console.WriteLine("Wrong input"); break;

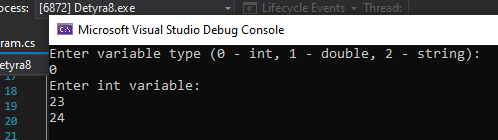
}

Console.ReadKey();

}

}

}



9.    We are given 5 integer numbers. Write a program that finds those **subsets whose sum is 0**. Examples:

-     If we are given the numbers {3, -2, 1, 1, 8}, the sum of -2, 1 and 1 is 0.

-     If we are given the numbers {3, 1, -7, 35, 22}, there are no subsets with sum 0.

10.   Write a program that applies **bonus points** to given scores in the range [1…9] by the following rules:

-     If the score is between 1 and 3, the program multiplies it by 10.

-     If the score is between 4 and 6, the program multiplies it by 100.

-     If the score is between 7 and 9, the program multiplies it by 1000.

-     If the score is 0 or more than 9, the program prints an error message.

11.   \* Write a program that **converts a number in the range [0…999] to words**, corresponding to the English pronunciation. Examples:

-     0 --> "Zero"

-     12 --> "Twelve"

-     98 --> "Ninety eight"

-     273 --> "Two hundred seventy three"

-     400 --> "Four hundred"

-     501 --> "Five hundred and one"

-     711 --> "Seven hundred and eleven"