Detyra 1.

Convert the numbers **151**, **35**, **43**, **251**, **1023** and **1024** to the **binary numeral system**.

Kodi:

int nr1 = 150;

string nr1Binar = Convert.ToString(nr1, 2);

Console.WriteLine("Numri i pare ne binare eshte: {0}", nr1Binar);

int nr2 = 35;

string nr2Binar = Convert.ToString(nr2, 2);

Console.WriteLine("Numri i dyte ne binare eshte: {0}", nr2Binar);

int nr3 = 43;

string nr3Binar = Convert.ToString(nr3, 2);

Console.WriteLine("Numri i trete ne binare eshte: {0}", nr3Binar);

int nr4 = 251;

string nr4Binar = Convert.ToString(nr4, 2);

Console.WriteLine("Numri i katert ne binare eshte: {0}", nr4Binar);

int nr5 = 1023;

string nr5Binar = Convert.ToString(nr5, 2);

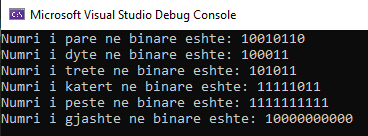
Console.WriteLine("Numri i peste ne binare eshte: {0}", nr5Binar);

int nr6 = 1024;

string nr6Binar = Convert.ToString(nr6, 2);

Console.WriteLine("Numri i gjashte ne binare eshte: {0}", nr6Binar);

Rezultati:



Detyra 2.

Convert the number **1111010110011110(2)** to **hexadecimal** and **decimal** numeral systems.

Kodi:

string binar = "1111010110011110";

var hexnr = Convert.ToInt32(binar, 2).ToString("X");

int deciaml = Convert.ToInt32(binar, 2);

Console.WriteLine("Numri {0} ne hexadeciaml eshte {1} dhe ne deciamle eshte {2}", binar, hexnr, deciaml);

Rezultati:

Detyra 3.

Convert the hexadecimal numbers **FA**, **2A3E**, **FFFF**, **5A0E9** to **binary** and **decimal** numeral systems.

Kodi:

string hex1 = "FA";

int nrHex1 = Convert.ToInt32(hex1, 16);

string binar1 = Convert.ToString(nrHex1, 2);

Console.WriteLine("Numri hex {0} ne binar eshte {1}.", hex1, binar1);

string hex2 = "2A3E";

int nrHex2 = Convert.ToInt32(hex2, 16);

string binar2 = Convert.ToString(nrHex2, 2);

Console.WriteLine("Numri hex {0} ne binar eshte {1}.", hex2, binar2);

string hex3 = "FFFF";

int nrHex3 = Convert.ToInt32(hex3, 16);

string binar3 = Convert.ToString(nrHex3, 2);

Console.WriteLine("Numri hex {0} ne binar eshte {1}.", hex3, binar3);

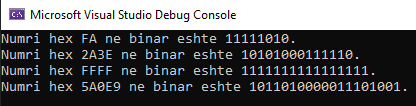
string hex4 = "5A0E9";

int nrHex4 = Convert.ToInt32(hex4, 16);

string binar4 = Convert.ToString(nrHex4, 2);

Console.WriteLine("Numri hex {0} ne binar eshte {1}.", hex4, binar4);

Rezultati:



Detyra 4.

Write a program that converts a **decimal number to binary** one

Kodi:

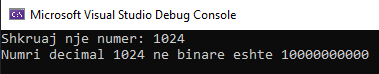
Console.Write("Shkruaj nje numer: ");

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

string nrBinar = Convert.ToString(nrDecimal, 2);

Console.WriteLine("Numri decimal {0} ne binare eshte {1}", nrDecimal, nrBinar);

Rezultati:



Detyra 5.

Write a program that converts a **binary number to decimal** one.

Kodi:

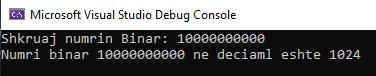
Console.Write("Shkruaj numrin Binar: ");

string nrBinar = Console.ReadLine();

int nrDecimal = Convert.ToInt32(nrBinar, 2);

Console.WriteLine("Numri binar {0} ne deciaml eshte {1}", nrBinar, nrDecimal);

Rezultati:



Detyra 6.

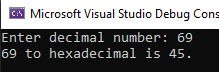
Write a program that converts a **decimal number to hexadecimal** one.

Kodi:

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

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

Console.WriteLine("{0} to hexadecimal is {1}.", deci, deci.ToString("X"));

Rezultati:

Detyra 7.

Write a program that converts a **hexadecimal number to decimal** one.

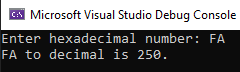
Kodi:

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

string hexa = Console.ReadLine();

Console.WriteLine("{0} to decimal is {1}.", hexa, Convert.ToInt32(hexa, 16));

Rezultati:



Detyra 8.

Write a program that converts a **hexadecimal number to binary** one.

Kodi:

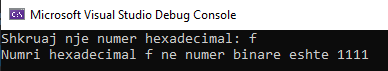
Console.Write("Shkruaj nje numer hexadecimal: ");

string nrHexa = Console.ReadLine();

int hex = Convert.ToInt32(nrHexa, 16);

string nrBinar = Convert.ToString(hex, 2);

Console.WriteLine("Numri hexadecimal {0} ne numer binare eshte {1}", nrHexa, nrBinar);

Rezultati:

Detyra 9.

Write a program that converts a **binary number to hexadecimal** one.

Kodi:

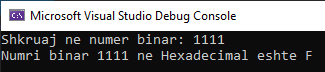
Console.Write("Shkruaj ne numer binar: ");

string nrBinar = Console.ReadLine();

var nrHexa = Convert.ToInt32(nrBinar, 2).ToString("X");

Console.WriteLine("Numri binar {0} ne Hexadecimal eshte {1}", nrBinar, nrHexa);

Rezultati:



Detyra 10.

Write a program that converts a **binary number to decimal** using the Horner scheme.

Kodi:

int deci = 0;

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

string binary = Console.ReadLine();

int length = binary.Length;

int power = length - 1;

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

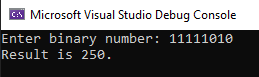
{

deci += (int)(int.Parse(binary[i].ToString()) \* Math.Pow(2, power));

power--;

}

Console.WriteLine("Result is {0}.", deci);

Rezultati:

Detyra 11.

Write a program that converts **Roman digits to Arabic** ones.

Kodi:

int result = 0;

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

String s = Console.ReadLine();

string[] chars = s.Select(c => c.ToString()).ToArray();

for (int i = 0; i < chars.Length; i++)

{

if (chars[i] == "m" || chars[i] == "M") result += 1000;

if (chars[i] == "d" || chars[i] == "D") result += 500;

if (chars[i] == "c" || chars[i] == "C")

{

result += 100;

if (i < chars.Length - 1)

{

if (chars[i + 1] == "d" || chars[i + 1] == "D") result -= 200;

if (chars[i + 1] == "m" || chars[i + 1] == "M") result -= 200;

}

}

if (chars[i] == "l" || chars[i] == "L") result += 50;

if (chars[i] == "x" || chars[i] == "X")

{

result += 10;

if (i < chars.Length - 1)

{

if (chars[i + 1] == "l" || chars[i + 1] == "L") result -= 20;

if (chars[i + 1] == "c" || chars[i + 1] == "C") result -= 20;

}

}

if (chars[i] == "v" || chars[i] == "V") result += 5;

if (chars[i] == "i" || chars[i] == "I")

{

result++;

if (i < chars.Length - 1)

{

if (chars[i + 1] == "v" || chars[i + 1] == "V") result -= 2;

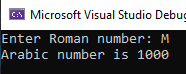
if (chars[i + 1] == "x" || chars[i + 1] == "X") result -= 2;

}

}

}

Console.WriteLine("Arabic number is " + result);

Rezultati:

Detyra 12.

Write a program that converts **Arabic digits to Roman** ones.

Kodi: String result = "";

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

int i = Convert.ToInt32(Console.ReadLine());

int thousands = i / 1000, hundreds = (i / 100) % 10, tens = (i / 10) % 10, ones = i % 10;

switch (thousands)

{

case 1: result += "M"; break;

case 2: result += "MM"; break;

case 3: result += "MMM"; break;

}

switch (hundreds)

{

case 1: result += "C"; break;

case 2: result += "CC"; break;

case 3: result += "CCC"; break;

case 4: result += "CD"; break;

case 5: result += "D"; break;

case 6: result += "DC"; break;

case 7: result += "DCC"; break;

case 8: result += "DCCC"; break;

case 9: result += "CM"; break;

}

switch (tens)

{

case 1: result += "X"; break;

case 2: result += "XX"; break;

case 3: result += "XXX"; break;

case 4: result += "XL"; break;

case 5: result += "L"; break;

case 6: result += "LX"; break;

case 7: result += "LXX"; break;

case 8: result += "LXXX"; break;

case 9: result += "XC"; break;

}

switch (ones)

{

case 1: result += "I"; break;

case 2: result += "II"; break;

case 3: result += "III"; break;

case 4: result += "IV"; break;

case 5: result += "V"; break;

case 6: result += "VI"; break;

case 7: result += "VII"; break;

case 8: result += "VIII"; break;

case 9: result += "IX"; break;

}

Console.WriteLine("Roman number is " + result);

Rezultati: