1. Create a new C# project and create a program that assigns integer values to variables. Be sure that each value is stored in the correct variable type (try to find the most suitable variable type in order to save memory). Finally, you need to print all variables to the console.

Examples:

Input	Output
-100 128 -3540 64876 2147483648 -1141583228 -1223372036854775808	-100 128 -3540 64876 2147483648 -1141583228 -1223372036854775808

2. Create a new C# project and create a program that assigns floating point values to variables. Be sure that each value is stored in the correct variable type (try to find the most suitable variable type in order to save memory). Finally, you need to print all variables to the console.

Examples

Input	Output
3.141592653589793238 1.60217657 7.818426197458455521653534 2341	3.141592653589793238 1.60217657 7.818426197458455521653534 2341

Hints

Just like at the previous problem, declare several variables of appropriate **floating-point data type**, assign the above listed values and **print** them.

3. Create a new C# project and create a program that assigns character and string values to variables. Be sure that each value is stored in the correct variable. Finally, you need to print all variables to the console.

Examples

Input	Output
Software University B y e I love programming	Software University B y e I love programming

4. Write a program that reads a number in hexadecimal format (0x##) convert it to decimal format and prints it.

Examples

Input	Output
0xFE	254
0x37	55
0x10	16

Solution:

Hints

Use **ToInt32(string, 16)**.:

5. Write a program that reads a string, converts it to Boolean variable and prints "Yes" if the variable is true and "No" if the variable is false.

Examples

Input	Output
True	Yes
False	No

Hints

Use **ToBoolean(string)**.: Converts a specified value to an equivalent Boolean value.

6. Declare two integer variables a and b and assign them with 5 and 10 and after that exchange their values by using some programming logic. Print the variable values before and after the exchange, as shown below:

Examples

Input	Output
5 10	Before: a = 5 b = 10 After: a = 10 b = 5

Hints

You may use a **temporary variable** to remember the old value of a, then assign the value of b to a, then assign the value of the temporary variable to b.

7. Write a program to ask the user for 3 letters and print them in reversed order.

Examples

Input	Output		Input	Output		Input	Output
A B C	CBA		x Y z	zYx		G g n	ngG

8. Create a program to calculate rectangle's perimeter, area and diagonal by given its width and height.

Examples

Input	Output		Input	Output
10 5	30 50 11.1803398874989		22.1 10.2	64.6 225.42 24.3402958075698

Hints

- Use Sqrt() to calculate square root for calculating the diagonal ($c^2 = a^2 + b^2$).

9. Create a program to convert a decimal number to hexadecimal and binary number and print it.

Examples

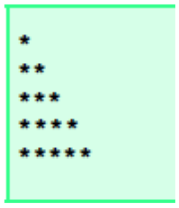
Input	Output		Input	Output		Input	Output
10	A 1010		420	1A4 110100100		256	100 100000000

10.Find online more information about ASCII (American Standard Code for Information Interchange) and write a program that **prints part of the ASCII table** of characters at the console. On the first line of input you will receive **the char index you should start with** and on the **second line - the index of the last character** you should print.

Examples

Input	Output
60 65	< = > ? @ A
69 79	E F G H I J K L M N O
97 104	a b c d e f g h

10. Write a console application that output the following (without loop):



11. Create a console application to display a 4x4 square using the asterisk symbol *. Thus your program should display:

```
****
*  *
*  *
****
```

a)-Using multiple output statements b)-Using one output statement

12. Write a console application that asks the user to enter two numbers obtains the two numbers from the user and prints the sum, product, difference, and quotient of the two numbers.

13. Given the algebraic equation y = ax3 + 7, write console application to display its value for an input value of x?

14. Write a console application to compute the volume of a sphere. The user should be prompted to enter the radius R, and your program should calculate the volume using the formula: $V = \frac{4}{3}\pi R^3$
For pi you may use 3.1416.