

I. using relational operators with numbers

- Write a program in which you initialize the random number generator and select a value between 1 and 100.
- Tell the user “I’m thinking of a number between 1 and 100. Can you guess what it is?”
- Then ask the user for a guess and read in the user’s number.
- Compare the number the user entered with the random number that the user picked, and display a message telling the user either (a) “guess again, go higher!” or (b) “guess again, go lower!” or (c) “you got it!”
- Put all this inside a loop, giving the user 5 chances to get the right answer
- Compile and run your program to make sure it works.

II. using relational operators with arrays of numbers

- Write a program in which you declare an integer array and fill it with 500 random numbers between 1 and 100.
- Using a `for` loop and an `if` statement, locate and print out the *largest* number in the array.
- Compile and run your program to make sure it works.

III. using relational operators with C++ style strings

- Write a program in which you ask the user to enter their first and last names. Store each name as a separate C++ style string (using the `string` data type).
- Compare the two strings and output a message telling the user whether their first or last names comes first in lexical (dictionary) order.

IV. using relational operators with C style strings

- Make a copy of the program you wrote for step III above, but use C style strings instead (i.e., use `char []` instead of `string`);
- Don’t forget to use `strcmp()` to compare the two C style strings!