**Algorithm**

Create a method for welcome message.

Tell the computer to print a message to screen.

Close method.

Create another method for generating random numbers.

Tell system to generate a new random number every time the method is called.

Specify a set of numbers between 0 and 100.

Close method.

Call main program method.

Initialize input scanner.

Call welcome message method name.

Tell the system to print a message; explain in the message what the game is and how to play.

Create a Boolean called “gameOver” no quotes and make it equal false.

Create an integer variable called first number and make it equal the random number method.

Tell system to say “The first number is (call number variable)”.

Open a statement that says while it is not game over, print a message that says “Is the next number higher or lower?”.

Create a string variable called answer and make it equal the scanner input command.

Change answer variable to equal to lower case.

Create a second number variable and make it equal the random number method.

Open an if statement that states; if answer variable equals “lower”.

Open another if statement that states; if second number is lower than first you win.

Tell first number to equal to second number.

Close statement.

Add and open an else statement.

Print a message saying “You Lose!”.

Call game over Boolean and make it equal “true”.

Close else statement.

Add and open another else statement.

Print a message that says “Please enter a valid number and try again.”.

Close all open statements