Looping and Iteration

1. Design and code a loop program which prints the numbers from -10 and +10 on to the screen, one per line. When this works, change your program so that it prints the numbers from -10 and +10 interspersed with '*'s on to the screen, again, one per line.

2. Design and code a loop program which prints the EVEN numbers from -10 and +10 on to the screen (one per line).

3. Design and code a loop program which prints the numbers divisible by 4 from -12 and +12 on to the screen (one per line).

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4. Design and code a program which prints the integers between two integers supplied by the User. First, check their relative size.

5. Design and code a program that calculates the number of dollars that sits on the 'final' square of a chessboard. The idea is that the first square has $1, the second $2, the third $4, the fourth $8 and so on. Test first with a small chessboard, i.e. a 5 by 5 to get an idea of how these numbers soon grow. Also, use a long int!

6. Design and code up a program which will read non-negative numbers (integers) and compute their sum. The user is expected to enter a negative number to end program.

   Adapt this program in the following ways:
   a. Add the facility to calculate and display the average of the numbers
   b. Add the facility to locate and display the largest number entered
   c. Re-implement a) and b) to support doubles

7. Design and code up a program which prints out the multiplication table for numbers in the range 1 to 12. This program requires nested loops

8. Design and implement a program which will draw a diagonal line of '*'s across the screen from the top right-hand corner of the screen to the bottom left hand margin.