C Intro / Refresher Lab # 2

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DO NOT TURN ANYTHING IN! FEEL FREE TO WORK WITH OTHERS ON THIS LAB.

The intention of this lab is to investigate tradeoffs in programming effort, complexity, et al. And, of course, to write more stuff in C. And have fun.

Consider the following output from a C program. The lines with the leftmost X's are against the left margin of the screen, the other lines begin with a single space, and there are single spaces between X's:

```
 X X X X X
X X X X X
 X X X X X
X X X X X
 X X X X X
```

First, write a program in C that outputs the pattern above (exactly).

Rule: You cannot use a C statement that outputs more than a single character at a time.

Optimizing for the smallest possible source code size isn't generally good programming practice, but it can help you learn language features more thoroughly. Modify your program to use as few characters of C source code as possible to output the same pattern.

Additional rule: Your entire source code must reside in a single file called `small.c`. You may not use header files, pipe code into gcc, etc.

Warnings during compilation are fine—it simply has to work and be small. Very small.

Evaluate your solution under Linux as follows:

```
$ wc -c small.c                 // to reveal # of characters
$ gcc -o small small.c          // compile
$ ./small                       // execute
```

Smaller than 75 characters is good. Smaller than 50 characters is world class.