

# CS 012 • Winter 2003

## In-lab Programming Exercise 1

### Functions

wagner@cs.ucr.edu  
Department of Computer Science and Engineering  
University of California, Riverside

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This first assignment is very simple and relies only on knowledge that you must have acquired in CS 010. Your task is to write a working C++ program called `in_lab_exer_1` which asks the user for three parameters — a character `c`, a positive integer `n`, and another positive integer `h` — and then prints on the console window a Christmas tree shape. For example, when you run your program and answer its prompts with the parameters `c = '+'`, `n = 4`, and `h = 2`, you should see the following printed on the console window:

```
      +
     +++
    +++++
   +++++++
  +
  +++
  +++++
 +++++++
```

The example tree above has `h = 2` branches, each with `n = 4` lines.

Your solution should be written in terms of a function with the following signature:

```
void f(const unsigned char c, const unsigned int n)
```

It's up to you to figure out what this function should do and how to use it.

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