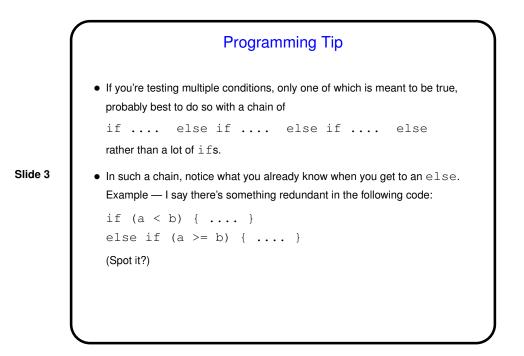
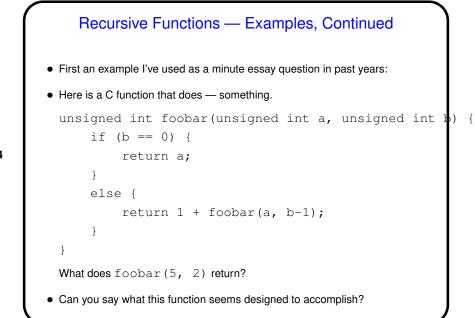


Slide 2





Slide 4

Recursive Functions — Examples, Continued

• foobar(5, 2) returns 7. Why...

• It's a roundabout way of doing addition!

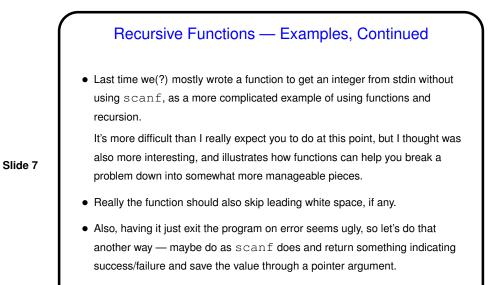
```
foobar(5, 2) = 1 + foobar(5, 1)
= 1 + 1 + foobar(5, 0)
= 1 + 1 + 5
= 7
```

Slide 5

• A cultural(?) note: The name of the mystery function (foobar) is one used often in CS when one needs a more or less meaningless name for something, along with variants foo, bar, and so forth. Apparently based on WWII-era acronym FUBAR.

## Sidebar: Tracing Code A valuable skill to have is working through what the computer will do when it executes your program — "tracing code" (also known as "desk checking", from the days before desktop computers, or "playing computer"). Idea is to write down names of variables, their values; when one changes, cross out old value and put in new one. (Short examples?) Also can be useful to enlist the computer's help with this, via "debug print" statements. Just remember to remove them (or at least comment them out) when you get things working!

Slide 6



• (Revise the code ...)

