Run time stack (AKA "call stack")

```
int f(int w, int z);

int g(int y) {
    int x;
    : // stuff happens...
    f(x,y);
    :
    return 0;
}
```

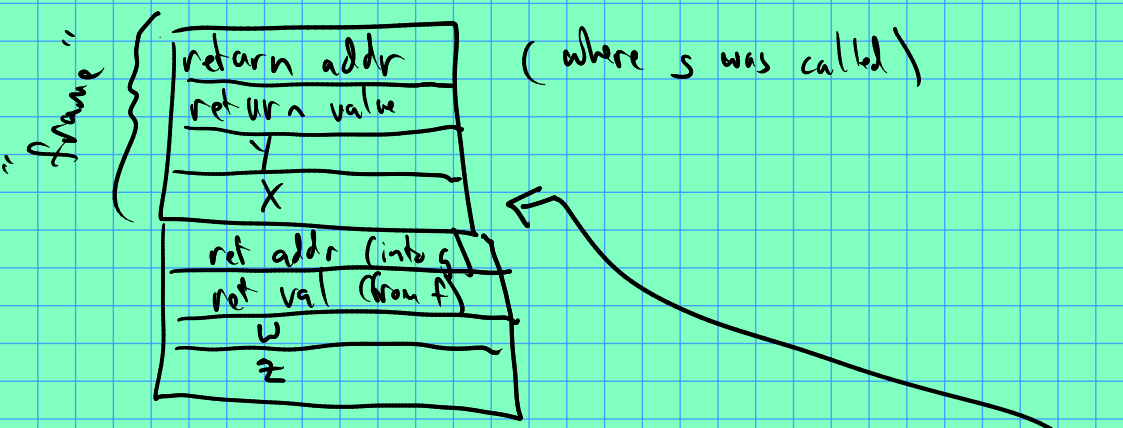
How to keep track of function calls??

Let's make a list of what info we would need to store when say g calls f:

1. location of f's ret. value.
2. where to put inputs for f?
3. "return address" (what to do when f is done)

All of 1, 2, 3 above (usually) stored on the "call stack". Also on the stack would be

4. local variables.



More reading! look up "calling conventions".

Question: who was responsible for allocating stack space for x?

g of course.

Similarly, if f has locals, they would

appear after z on the stack.

You would hope that these behind the scenes things would stay behind the scenes...

This design has many security implications!

Consider an array on the stack (as a local variable)