

What Comes First in a Recursive Function?

```
int32_t print_reverse
(const char* s)
{
    if ('\0' == *s) {
        return 0;
    }
```

What comes first?

stopping
conditions

When do we stop?

at end of string (NUL)

How long is *s*
in that case?

0

What About This “Node?” What About Children?

If the string isn't empty, we need to

- **print one character**, and
- **call `print_reverse` with the rest of the string.**

In what order?

Call first, then print.

We also need a local variable to store the return value from the call.

How Do We Make the Recursive Call?

```
int32_t print_reverse
(const char* s)
{
    int32_t rest;
    if ('\0' == *s) {
        return 0;
    }
    rest = print_reverse (s + 1);
```

What should
be passed
to the
recursive call?

What Do We Print?

```
int32_t print_reverse
(const char* s)
{
    int32_t rest;
    if ('\0' == *s) {
        return 0;
    }
    rest = print_reverse (s + 1);
    printf ("%c", *s);
```

What character
should be printed?