Don't Overdo It: You Know What a Memory Address Is

**How useful are pointers
to pointers to pointers?**

I **think I've seen them** used.

**How useful are pointers
to pointers to pointers to pointers?**

Great tool for testing whether students
understand pointers. Otherwise **useless**.

Example: Compare Two Strings

Let's do an example.

Let's **compare two strings**.

```
// Return 1 if equal, 0 otherwise.
int string_equal
    (char* s1, char* s2);
```

String comparison
◦ is available in **C**'s standard library,
◦ but used to be a routine interview question
◦ to check whether the applicant had a clue.

Good Code for Comparing Two Strings?

```
int string_equal
    (char* s1, char* s2)
{
    return (s1 == s2);
}
```

What do you think?

Maybe not what we want.

Code for Comparing Two Strings

```
int string_equal
    (char* s1, char* s2)
{
    while ('\0' != *s1) {
        if (*s1 != *s2) { return 0; }
        s1++;
        s2++;
    }
    return ('\0' == *s2);
}
```

End of s1 yet?

ASCII NUL in C

If characters differ…

…strings also differ.

Advance string pointers.

Also at end of s2?

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