



Memory, Pointers, string.h

CS 2130: Computer Systems and Organization 1
April 15, 2026

Announcements

- Homework 9 due Monday on Gradescope
- Final Exam Thursday April 30, 2026 at 7pm

Memory

Common Memory Problems (from reading)

- Memory leak
- Uninitialized memory
- Accidental cast-to-pointer
- Wrong use of 'sizeof'
- Unary operator precedence mistakes
- Use after free
- Stack buffer overflow
- Heap buffer overflow
- Global buffer overflow
- Use after return
- Uninitialized pointer
- Use after scope

More on `man` pages

```
char *strsep(char **s, const char *d);
```

↑
string



ptr to char → string

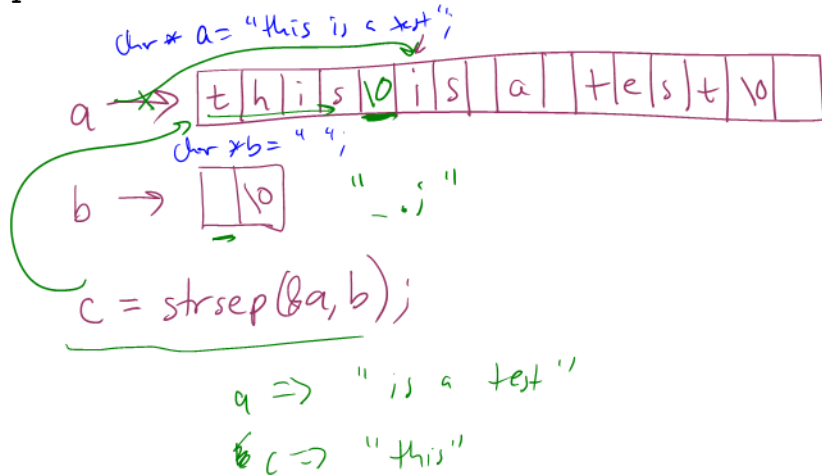
ptr → ptr → char

ptr → array of chars

~~array of ptrs to char~~

~~array of arrays of char:~~

```
char *strsep(char **s, const char *d);
```



`string.h` manual page and examples
`strcmp()`, `mcp()`, `strcat()`