Notes from CS 208
Friday 7 Jan 2022
bit ("binary digit")

byte

Fred Brooks

00000000

2^8 = 256

1111 1111
Integer notation

Base ten/decimal

Base two(binary)

Base eight(octal)
Two

$2^3$

Patterns

0 0 0

1 1 1

0 6 5
Base sixteen/hexadecimal
012...9ABCDEF

00110101

2

↓↓

Ø×3 5

#35
C

dec
binary
octal
hex

573
06011010111
05371
0x3a5b
Mem

dog
?
?
?
?
?
?
Running

./strings moose rat

main(int argc,
    char *argv[])
Char *p;

- Type of p
- p contains the address of a char
char letter = 'K';

char *p;

p = &letter;

"address of"

char newletter = *p;

"pointer to a char"

"the thing at address p"
```c
char grid[4][3];
```

<table>
<thead>
<tr>
<th>Row</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Columns:

```
grid[0]  ->  A
grid[1]  ->  A
grid[2]  ->  B
...      <-
```