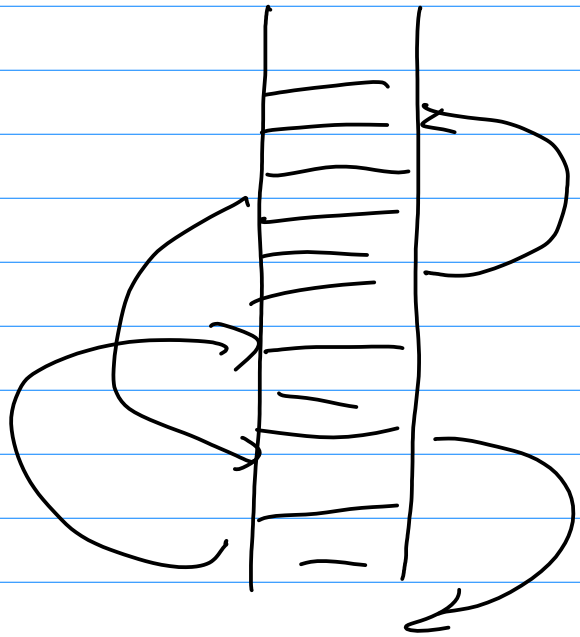
lines of code

Control structures

Sequence
selection
repetition

) selection
if
if/else
switch



Bitwise

& AND clears bits where mask is zero
keep bits where mask is one

&= x 10101100
& mask 00001111
00001100

| OR Set bits where mask is 1

x 10101100
| mask 00001111
10101111

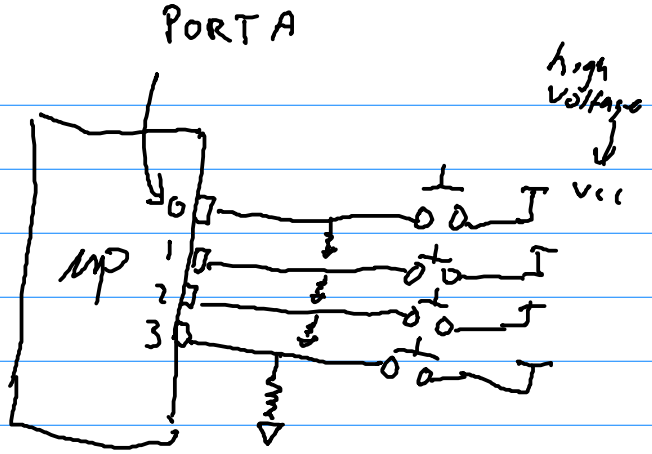
XOR
^ EOR toggle bits where mask is 1

x 10101100
^ mask 00001111
10100011

PORTA

7 6 5 4 3 2 1 0

X = PORTA & 0b00001111



If you need to shift & mask

shift then mask

y >> 4 might shift in 1's

(y >> 4) & 0x0F

(y & 0xF0) >> 4 might shift in 1's

Selection

```
if (x<7)  printf("%d", x);
if (x==0)  blinkLED(4);
if (x!=0)  blinkLED(4);
if (x)  blinkLED(4);
if (!x)  blinkLED(4);

if (temp > 100) {
    blinkRED(4);
}
else {
    blinkGREEN(4);
}
```

same

same