2's Compliment

```
01001000      01001000
+01100100     +10011100
----------    ----------
10101100      (1)01100100
              negative
```

Check for Carry

```
 1  CIN
 0 1
 0 1
---------
(0) 1 0
Cout
```

CIN ⊕ Cout = overflow

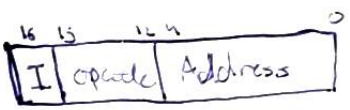
Overflow 59 + (-19)

59 = 0111 000
19 = 0010011

2's compliment of 19

```
  1101100
+        1
---------
 1101101
```

I. = Addressing Mode
I = 0 direct
I = 1 indirect



AC → DR
Contents of AC are transferred to DR

M[AR] ← DR
Transfer the word stored in DR to Memory at address stored in AR

Addressing Modes

Specifies how to calculate the effective memory address of an operand.

Indexed addressing

Find a memory location based on index

Prof may throw LDAC curveball on Fri., instruction does nothing *

Immediate Addressing

MOV AX, 454

Moves right from memory to accumulator.

No bus, No ... registers.