

## FLAGS Register

- 32 bits in 32x86
- Flags are true or false

### ZF (Zero Flag)

1 if result of operation is zero, 0 otherwise (to check if eq/neq)

- CMP usually to check if things equal
- CMP subtracts two operands from each other, depending on result flags set/cleared

### CF (Carry Flag)

1 if operation result in carry out of most significant bit

- Most significant bit is top bit

### PF (Parity Flag)

1 if result is even

### SF (Sign Flag)

1 if most sig bit of result if set (- num in signed operations)

### OF (Overflow Flag)

1 if result can't be represented in given number of bits (too big/small)

## Jumps

Makes code jump from where it is currently to a label

Unconditional Jump:

- always executes

```
jmp label
```

Conditional jump:

- only executes if condition is true, needs to be combined w/ comparison operation

```
je; jump if eq
```

```
jne; jump if neq
```

```
jc; jump if carry flag is set
```

```
jnc; jump if not carry flag is set
```

## Input

- is a syscall