

# NOTES: Binary Representations

# Binary Representations

---

## Sign-magnitude

- Most significant bit signifies sign (0 for +, 1 for -)
- Drawback: there are two ways to represent 0

## 1's complement

- To invert sign in 1's complement, flip every single bit
- When adding or subtracting, you have to do an "end-around carry/borrow"

## 2's complement

- To invert sign in 2's complement, flip all bits, and add 1