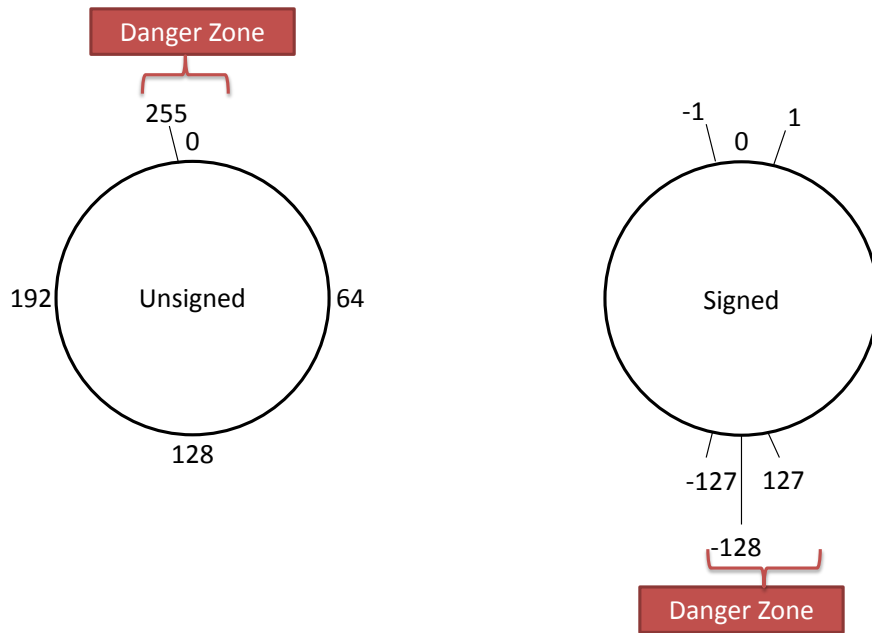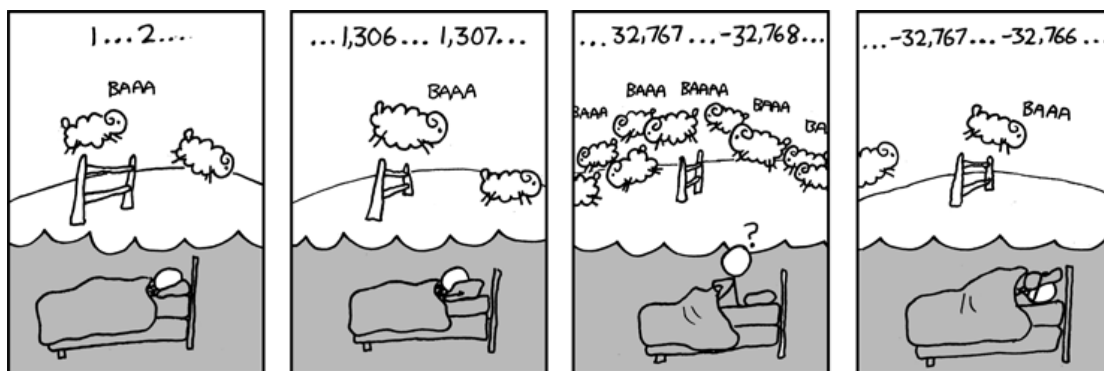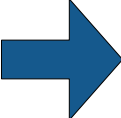# Overflow

"Can't Sleep"

(source: xkcd.com)

Sign Extension

(5)   0101 ➡ 00000101

(-4)   1100 ➡ 11111100

Lab 1 Preview

- **sign(x)**: Given an int **x**, return 1 if x is positive, 0 if x is zero, and -1 if x is negative.

- No loops or conditionals!

- Allowed operators: ! ~ & ^ | + << >>

- **Hint**: First consider how to get -1 if x is negative and 0 otherwise. Then extend solution for the positive (+1) case.