

## Two's Complement Homework

Remember the basics for two's complement:

- A leading value of 1 means the number is negative
- To find out what the negative number represents...
  - Invert all the bits
  - Add 1

*NOTE: Use 8-bit representations of every number below*

Complete the following in binary

a)  $00001110_2 + 00100011_2$       b)  $75_{10} + 26_{10}$

Using two's complement

a)  $37_{10} - 37_{10}$   
ex:  $37_{10} + (-37_{10})$

b)  $55_{10} - 18_{10}$

c)  $85_{10} - 65_{10}$

Using two's complement

a)  $-14_{10} + 28_{10}$

b)  $20_{10} - 36_{10}$

c)  $15_{10} - 50_{10}$