

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

[1] a) $1110_2 + 100011_2$ b) $75_{10} + 26_{10}$

[2] Using two's complement

a) $37_{10} - 37_{10}$

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

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

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

[3] Using two's complement

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

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

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