

HW2 is due on Friday, Feb. 6, 2009.  
It is on the website.

Test 1 date is on the website with some information about it.

Q4 (in-class exercise)

$N^* = 2^n - N$ , so for an 8-bit number,

$$2^8 - N \quad 2^8 = 100000000$$

if  $N = (30)_{10} = (1E)_{16} = (00011110)_2$ , then

$$\begin{array}{r} N^* = 100000000 - \\ \quad 00011110 \\ \hline 11100010 ? \end{array}$$

but don't do it that way!

Use one of the faster two methods described in the last lecture instead:

$$(1) N^* = [(2^k - 1) - N] + 1 = \bar{N} + 1$$

(2)  $N^*$  is obtained by complementing each bit of  $N$  to the left of the right most 1.