

HW1  
CSc 137, Fall 2015, Faroughi

**Due Sept. 16 in class**

Problems 1.1 but use decimal number 13 for parts a (4 bits), b (6 bits), c (5 bits), and f (5 bits) and -13 for parts d (5 bits), e (6 bits), and g (5 bits); 1.23; and 1.24. Also, for 1.23 assuming that multiplication takes  $3\tau$  and add takes  $1\tau$  determine the speedup of processing of the for-loop in the standard way vs. the SIMD way. Ignore data read and write times and loop index calculation time. Speedup is calculated as the time of the slow machine divided by the time of the fast machine.

**Must show work to earn points.**