

Name:
cs30x____
Score:

Quiz 1
CSE 30
Spring 2001

#1. Show the representation of -253_{10} in the following representation schemes (assume 12-bit words):

- a) sign magnitude
- b) one's-complement
- c) two's complement

#2. Convert 411_{10} into (assume 12-bit words):

- a) binary
- b) octal
- c) hexadecimal

#3. Fill in the CCR bits for the following addition instructions (8-bit two's-complement numbers):

$$\begin{array}{r}
 00111001 \\
 + 01010111 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 10110110 \\
 + 01001010 \\
 \hline
 \end{array}$$

N	Z	V	C

N	Z	V	C

(over)

#4. Powers of 2

$$32K = 2^{\text{---}}$$

$$2^{27} = \text{---} \quad (\text{in terms of K, M, G, etc.})$$

#5. The SPARC architecture is an example of a _____ architecture. The only two instructions that access memory are _____ and _____.