

Name:
cs30x_____

Score:

Quiz 1
CSE 30
Spring 2002

#1. Show the representation of -417_{10} in the following representation schemes (assume 16-bit words):

- a) sign magnitude

- b) one's-complement

- c) two's complement

#2. Convert 564_{10} into (assume 16-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):

```
  00110111
+ 01001011
-----
```

```
  10110001
+ 11010111
-----
```

```
  N   Z   V   C
-----
|   |   |   |
-----
```

```
  N   Z   V   C
-----
|   |   |   |
-----
```

(over)

#4. Powers of 2

$$512G = 2^{\text{---}}$$

$$2^{14} = \text{---} \quad (\text{in terms of K, M, G, etc.})$$

#5. List the order of the stages of the compilation process discussed in class:

- A - as (assembler)
- B - exe/a.out (executable image)
- C - cpp (C Preprocess)
- D - ld (Linkage Editor)
- E - ccomp (C Compiler)

% cc/gcc file.c --> _____ --> _____ --> _____ --> _____ --> _____