#1. a) Write the SPARC assembly instructions to define the following global variables in the data segment:

```assembly
char c = 0x0A;
float bone = 4.20;
char *fmt = “Surf Naked\n”;
```

#2. What is the value (in hex) of %o1 after each set of instructions:

**a)**
```
set 0xDDECAFE, %o1
sll %o1, 20, %o1
```
Value in %o1 at this point is 0x______________________________

**b)**
```
set 0xDDECAFE, %o1
sra %o1, 12, %o1
```
Value in %o1 at this point is 0x______________________________

**c)**
```
set 0xDDECAFE, %o1
set 0xC6C6C6C6, %o2
and %o1, %o2, %o1
```
Value in %o1 at this point is 0x______________________________

**d)**
```
set 0xDDECAFE, %o1
set 0xC6C6C6C6, %o2
btog %o2, %o1
```
Value in %o1 at this point is 0x______________________________

(over)
#3. Write the equivalent unoptimized SPARC assembly language instructions to perform the following C code fragment.

```
C
x = fubar( 420, -17, -4833 );

SPARC assembly
/* x is mapped to %l3 */
```

Now optimize your answer to eliminate any delay slots:

```
Optimized version of above SPARC assembly
```