#1. a) Write the SPARC assembly instructions to define the following global variables in the data segment:
   - char *fmt = “CS30 Rules\n”;
   - long l = 405;
   - double d = 12.34;

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

a)     set   0xBEADF00D, %o1
       sll   %o1, 8, %o1

Value in %o1 at this point is 0x__________________________________________

b)     set   0xBEADF00D, %o1
       sra   %o1, 12, %o1

Value in %o1 at this point is 0x__________________________________________

c)     set   0xBEADF00D, %o1
       set   0x5C5C5C5C, %o2
       or    %o1, %o2, %o1

Value in %o1 at this point is 0x__________________________________________

d)     set   0xBEADF00D, %o1
       set   0x5C5C5C5C, %o2
       bclr  %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

```c
for ( i = 32; i < 420; ++i ) {
    x = i + 7;
}
```

SPARC assembly

```assembly
/* i is mapped to %13 */
/* x is mapped to %15 */
```

Now optimize your answer to eliminate any delay slots:

Optimized version of above SPARC assembly