#1. a) Write the SPARC assembly instructions to define the following `global` variables in the `data` segment:
   ```
   char *s = "Big One";
   long l = 420;
   double d = 7.891;
   ```

#2. What is the value (in hex) of %o1 after each set of instructions:
   a) set 0xC99CD7D3, %o1
      sll %o1, 16, %o1
      Value in %o1 at this point is 0x___________________________________________

   b) set 0xC99CD7D3, %o1
      sra %o1, 8, %o1
      Value in %o1 at this point is 0x___________________________________________

   c) set 0xC99CD7D3, %o1
      set 0x96329632, %o2
      or %o1, %o2, %o1
      Value in %o1 at this point is 0x___________________________________________

   d) set 0xC99CD7D3, %o1
      set 0x96329632, %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 = 5882; /* x is mapped to %l3 */
do {
    --x;
    a = x % 55; /* a is mapped to %15 */
} while ( a >= 42 );
```

Now optimize your answer to eliminate any delay slots:

**Optimized version of above SPARC assembly**