

### ANSI C Solution for Problem #3

```
#include <stdio.h>

int main( void ) {

    long ma = 1703, fa = 3714, m0 = 1372, f0 = 1280, m1 = 686, f1 = 640, f,
         yr = 1994;
    int i;

    printf( "          HERD      ADULT      ADULT      MALE      FEMALE      MALE  " );
    printf( "    FEMALE\n" );
    printf( "YEAR      SIZE      MALES      FEMALES      FAWNS      FAWNS      NEWBORN" );
    printf( "    NEWBORN\n" );
    printf( "----      -----      -----      -----      -----      -----      -----" );
    printf( "    -----\n" );
    for (i = 0; i < 16; i++) {
        printf( "%4ld  %7ld  %7ld  %7ld  %7ld  %7ld  %7ld  %7ld\n", yr,
                ma + fa + m0 + f0 + m1 + f1, ma, fa, m0 + m1, f0 + f1, m0, f0 );
        yr++;
        f = fa;
        ma = (15L * ma + 60L * m1 + 50L) / 100L;
        fa = (90L * fa + 60L * f1 + 50L) / 100L;
        m1 = (55L * m0 + 50L) / 100L;
        f1 = (55L * f0 + 50L) / 100L;
        m0 = (52L * 150L * f + 5000L) / 10000L;
        f0 = (48L * 150L * f + 5000L) / 10000L;
    }
    return 0;
}
```