

7.6 The following program computes prime numbers by the Sieve of Eratosthenes:

```
L=10000;
BEGIN;
DECLARE N(L);
N=1; M=SQRT(L);
DO I=2 TO L;
  IF N(I)=0 THEN GO TO JUMP;
  PUT EDIT (I) (F(5));
  IF I<=M THEN DO K=I TO L/I;
    N(K*I)=0;
  END;
  JUMP;;
END;END;
```

Since two is the only even prime number, modify the program to test only two and odd numbers. (You should clean up the formatting and eliminate the label as you do.) Does your new version run twice as fast as the old? Nearly twice as fast? Measure and see.

Modify the program to save storage by storing only odd numbers in the array N. What effect does this have on the run time?