

## Assignment for Thursday, 2/8

### I Exercises from book:

Section 3.3  $\rightarrow$  3, 12, 13, 24, 25, 26b, 27.

### II Supplementary Exercises:

16 If  $p$  &  $p+2$  are twin primes, with  $p > 3$ , then prove that  $6 \mid p+1$  (or  $12 \mid p+p+2$ ).

### III Optional Exercises:

7 Given a set  $M$  of 1539 distinct positive integers, none with a prime factor greater than 26, prove that  $M$  contains four distinct elements whose product is the fourth power of an integer.

(Compare to Optional Exercise #4)