Assignment for Thursday, 2/8

I. Exercises from book:
Section 3.3 \( \rightarrow \) 3, 12, 13, 24, 25, 26, 27.

II. Supplementary Exercises:

16. If \( p \) and \( p+2 \) 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 \( M = 1539 \) 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)