In writing your proofs, fully explain all the important steps. Use full and grammatically correct English sentences. Be clear and concise.

Exercise numbers are from the end-of-section exercise sets in the 2002 reissue of *Elementary Number Theory* by James K. Strayer.

*There are hints for items 1, 3, 4, and 5 in the section at the end of the textbook.*

1. (5 points) Exercise Set 5.2, # 16 (a) (b)

2. (5 points) Exercise Set 5.2, # 17 (a)

3. (5 points) Exercise Set 5.2, # 18 (a)

4. (5 points) Exercise Set 5.2, # 22 (a)

5. (5 points) Exercise Set 5.3, # 26 (b)