Homework III

1. [12 points]
   Problem 17, p. 243 of our text.

2. [15 points]
   Problem 21, p. 243 of our text.

3. [5 points]
   Problem 3, p. 251 of our text.

4. [15 points]
   Problem 5, p. 251 of our text.

5. [8 points]
   Explain why for any sets A and B, \( #(A \cap B) = #A + #B - #(A \cup B) \).

6. [10 points]
   Problem 1, p. 262 of our text.