HW 4: due Tuesday, February 21

Reminder I: NO CLASS on Thursday, Feb 23 (Tufts on a Monday schedule)

Reminder II: Exam 1 is in class on Tuesday, February 28th! It will cover the material in Richmond and Richmond chapter 1, and chapter 2, sections 2.1 and 2.2, and the first 4 HW assignments (including this one).

Read Richmond and Richmond, sections 2.1 and 2.2 carefully.
From Richmond and Richmond do problems:
Section 2.1 (pp. 59-60): 2, 9ab, 13, 24,
Section 2.2 (pp. 69-70): 2de, 14bc (d for extra credit), 15

Part II:

Using mathematical induction, prove that if $A_1, A_2 \ldots A_n$ and $B_1, B_2, \ldots B_n$ are sets, such that $A_k \subseteq B_k$ for $k = 1, 2, \ldots, n$, then

$$\bigcup_{k=1}^{n} A_k \subseteq \bigcup_{k=1}^{n} B_k$$

Note: some of these problems are not easy! Start early!