MA 571: Homework # 2 due Wednesday September 9.

Please read Sections 17–18, but **skip** the subsection on limit points (page 97 to the top of page 98) and also skip Theorem 17.9.

Please do:

p. 100 # 3, 6(b), 6(c), 7, 9, 10, 13
p. 111 # 4, 8(ab)

A) Given: X is a topogical space with open sets $U_1, \ldots, U_n$ such that $\overline{U_i} = X$ for all i. Prove that the closure of $U_1 \cap \cdots \cap U_n$ is X.