

$\mathcal{A} = \{A_1, A_2, \dots, A_n\}$ is a family of subsets of X . Let $\mathcal{B} = \{B_1, B_2, \dots, B_m\}$ be another family of subsets of X . Define $\mathcal{C} = \{C_1, C_2, \dots, C_k\}$ as the family of subsets of X such that $C_i = A_j \cap B_l$ for some $j \in \{1, 2, \dots, n\}$ and $l \in \{1, 2, \dots, m\}$. Then, \mathcal{C} is a family of subsets of X that is closed under finite intersections.