Quiz 1 Solutions

Problem 1 Let $A = B \cap C$. Prove that $A \times A = (B \times C) \cap (C \times B)$.

Problem 2 Consider the following set: $A = \{c, \{t, i\}, \{d, e, f\}\}$

1) Find the power set $\wp(A)$
2) List 3 of the partitions of A

Problem 3 Let $\mathcal{A}$ and $\mathcal{B}$ be algebras of subset of U. Is $\mathcal{A} \cup \mathcal{B}$ also an algebra of the subset of U ? Explain.