TRUE/FALSE QUESTIONS

RELATIONS
Chapter #11

(1) An equivalence relation is a subset of $A \times B$.
(2) An equivalence relation is a subset of $A \times A$.
(3) $\{(a, a) : a \in A\}$ constitutes an equivalence relation on $A$.
(4) Let $a, b \in A$. Whenever $[a] \neq [b]$, then $[a] \cap [b] \neq \emptyset$.
(5) Let $a, b \in A$. Whenever $[a] \neq [b]$, then $[a] \cap [b] = \emptyset$.
(6) Let $a, b \in A$. Whenever $[a] \cap [b] \neq \emptyset$, then $[a] \neq [b]$.
(7) A family of subsets of $A$, $F$, that partitions $A$ is pairwise disjoint.
(9) A family of subsets of $A$, $F$, that covers $A$ will partition $A$.
(10) A family of subsets of $A$, $F$, that is pairwise disjoint will partition $A$.
(11) Every non-empty set can be well-ordered.
(12) A strict linear order on $A$ is a well ordering of $A$. 