

Math 2283 - Introduction to Logic

Quiz #19 - 2016.02.29 Solutions

1. Rewrite the following set relation in terms of elements, your answer should not include \cap , \cup , or \subseteq .

$$(K \cup L') \cap (M \cup K') \subseteq (K' \cap L') \cup M$$
$$[(x \in K \vee \sim x \in L) \wedge (x \in M \vee \sim x \in K)] \rightarrow [(\sim x \in K \wedge \sim x \in L) \vee x \in M]$$

2. Find all values which satisfy the following sentential function, given a universal set U :

$$\forall K \subseteq U (B \subseteq K)$$

The only set B which is a subset of any arbitrary set is the empty set \emptyset .