

$$1 - x \in M \cup N$$

zu beweisen

$$1-2 \quad (a) \quad X \setminus (Y \cap Z) = (X \setminus Y) \cup (X \setminus Z)$$

$$n \in X \cap n \notin (Y \cap Z) = n \in X \cap (n \notin Y \cup n \notin Z) \\ = (n \in X \cap n \notin Y) \cup (n \in X \cap n \notin Z)$$

$$= n \in (X \setminus Y) \cup (X \setminus Z)$$

$$(b) \quad (A \cap (B \cup C)) = (A \cap B) \cup (A \cap C)$$

zu beweisen

$$x \in A \cap x \in (B \cup C) = x \in A \cap (x \in B \cup x \in C) \\ = (x \in A \cap x \in B) \cup (x \in A \cap x \in C)$$

$$= x \in (A \cap B) \cup (A \cap C)$$