

# MGI- Blatt 1

1-1 (a)  $\overline{M \cup N} = \overline{M} \cap \overline{N}$  zu beweisen

$$\begin{aligned}\overline{x \in M \cup N} &= x \notin M \cup N \\ &= x \notin M \cap x \notin N \\ &= x \in \overline{M} \cap x \in \overline{N} \\ &= x \in \overline{M} \cap \overline{N}\end{aligned}$$

(b)  $\overline{M \cap N} = \overline{M} \cup \overline{N}$  zu beweisen

$$\begin{aligned}\overline{x \in M \cap N} &= x \notin M \cap N \\ &= x \notin M \cup x \notin N \\ &= x \in \overline{M} \cup x \in \overline{N} \\ &= x \in \overline{M} \cup \overline{N}\end{aligned}$$