$a1$	$(A \cup B) \cup C = A \cup (B \cup C)$	$a2$	$(A \cap B) \cap C = A \cap (B \cap C)$
$b1$	$A \cup B = B \cup A$	$b2$	$A \cap B = B \cap A$
$c1$	$A \cup (A \cap B) = A$	$c2$	$A \cap (A \cup B) = A$
$d1$	$A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$	$d2$	$A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
$e1$	$A \cup A^c = \mathcal{U}$	$e2$	$A \cap A^c = \emptyset$
$f1$	$A \cup A = A$	$f2$	$A \cap A = A$
$g1$	$A \cup \emptyset = A$	$g2$	$A \cap \mathcal{U} = A$
$h1$	$A \cap \emptyset = \emptyset$	$h2$	$A \cup \mathcal{U} = \mathcal{U}$
$i1$	$\emptyset^c = \mathcal{U}$	$i2$	$\mathcal{U}^c = \emptyset$
$j1$	$(A \cup B)^c = A^c \cap B^c$	$j2$	$(A \cap B)^c = A^c \cup B^c$
k	$(A^c)^c = A$		