DeMorgan's Second Law, Specific Example

\[(A_1 \cap A_2)^c = A_1^c \cup A_2^c\]

General Statement of DeMorgan's Second Law

\[
(\bigcap_{j} A_j)^c = \bigcup_{j} A_j^c
\]

An outcome is in \((\bigcap_{j} A_j)^c\) (and only if) it is not in \(\bigcup_{j} A_j\), i.e., if it is missing from at least one of the \(A_j\)'s.

Equivalently, if it is in at least one of \(A_j^c\)'s, i.e., in \(\bigcup_{j} A_j^c\).