Worksheet A

Logic Truth Values and Tables

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Let a well-defined domain of discourse exist.
Let K, W, and N be prime statements.

(1) Construct a compleat Truth Table for the statement $\neg K \vee W$

(2) Construct a compleat Truth Table for the statement $\neg(K \vee W)$

(3) Construct a compleat Truth Table for the statement $K \vee \neg W$

(4) Construct a compleat Truth Table for the statement $\neg K \vee \neg W$

(5) Construct a compleat Truth Table for the statement $\neg(K \wedge W)$

(6) Construct a compleat Truth Table for the statement $K \wedge \neg W$

(7) Construct a compleat Truth Table for the statement $\neg K \wedge \neg W$

(8) Construct a compleat Truth Table for the statement $K \wedge W \vee N$

(9) Construct a compleat Truth Table for the statement $(K \wedge W) \vee N$

(10) Construct a compleat Truth Table for the statement $K \wedge (W \vee N)$

(11) Of the previous truth tables which are tautologies, fallacies, or contradictions?

(12) Are any of the truth tables resulting in the exact **same** truth values case-by-case (last column identical)? Which? What do you opine such means?

(13) Are any of the truth tables resulting in the exact **opposite** truth values case-by-case (last column completely opposite)? Which? What do you opine such means?