Worksheet B

Logic Truth Values and Tables II

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1. Do the following (please minimally do A. through E.):

(A.) Construct a compleat Truth Table for the statement $\neg(A \wedge \neg B)$
(B.) Construct a compleat Truth Table for the statement $A \vee \neg B$
(C.) Construct a compleat Truth Table for the statement $\neg A \vee B$
(D.) Construct a compleat Truth Table for the statement $(A \longrightarrow \neg B)$
(E.) Construct a compleat Truth Table for the statement $(\neg A \longrightarrow B)$
(F.) Construct a compleat Truth Table for the statement $\neg(\neg A \wedge B) \longleftrightarrow (A \longrightarrow B)$
(G.) Construct a compleat Truth Table for the statement $(\neg A \vee B \longleftrightarrow B \vee \neg A)$
(H.) Construct a compleat Truth Table for the statement $(((A \wedge \neg B) \wedge B) \longrightarrow A)$
(I.) Construct a compleat Truth Table for the statement $(((A \wedge B) \wedge \neg B) \longrightarrow A)$
(J.) Construct a compleat Truth Table for the statement $(((A \vee B) \wedge \neg C \wedge \neg B) \longrightarrow A)$

2. For each of the previous what was the main connective (part (A.) through part (J.))?

3.

(A.) Print out handout 2A and Logic Rules Handout.
(B.) Do truth tables for the Logic Rules to verify which are tautologies, which are contradictions, and which are neither.
(C.) Memorise the Laws of Logic (we will have a quiz over these rules (straight memorisation) beginning Wednesday).