

Homework Handout #2 - Rules of Implication

Instructions: For each of the following arguments, determine which, if any, of the 8 Rules of Implication is being followed.

1. $A \supset (B \cdot C)$
 $\sim(B \cdot C)$
 $\therefore \sim A$

7. $S \vee \sim T$
 $\sim\sim T$
 $\therefore \sim S$

2. $[(D \vee E) \supset F] \cdot [F \supset (G \equiv H)]$
 $(D \vee E) \vee F$
 $\therefore F \vee (G \equiv H)$

8. $\sim U \equiv V$
 $(\sim U \equiv V) \supset W$
 $\therefore W$

3. $I \supset \sim J$
 $K \supset I$
 $\therefore K \supset \sim J$

9. $X \supset \sim Y$
 $\sim Y \supset Z$
 $\therefore (X \supset \sim Y) \cdot (\sim Y \supset Z)$

4. L
 $\sim M \cdot N$
 $\therefore \sim(M \cdot N) \cdot L$

10. $(A \vee \sim B) \vee \sim\sim C$
 $\therefore A \vee \sim B$

5. O
 $\therefore O \cdot \sim O$

11. $\sim[D \supset (E \vee F)]$
 $[D \supset (E \vee F)] \vee [G \supset (E \cdot \sim F)]$
 $\therefore [G \supset (E \cdot \sim F)]$

6. P
 $\therefore P \vee [Q \equiv (R \cdot \sim P)]$

12. $[(G \vee H) \cdot I] \cdot (\sim I \equiv K)$
 $\therefore (G \vee H) \cdot I$