

Extra Derivation Practice Problems

1. Derive: T from

$$(P \vee Q) \supset R$$

$$\sim S$$

$$(R \vee S) \supset T$$

$$\sim S \supset P$$

2. Derive $Q \ \& \ (P \ \& \ \sim R)$ from

$$P \supset Q$$

$$[(N \vee P) \ \& \ S] \supset (T \ \& \ P)$$

$$S \ \& \ N$$

$$T \supset \sim R$$

3. Derive: $T \supset (Q \vee S)$ from

$$(P \supset Q) \ \& \ (R \supset S)$$

$$T \supset (P \vee R)$$

4. Derive: $\sim Q$ from

$$(P \vee Q) \supset (R \ \& \ S)$$

$$\sim R$$

5. Derive: $P \equiv R$ from

$$P \equiv Q$$

$$Q \equiv R$$