

Name: _____

Truth Tables Review Worksheet

For each argument below, prove if its valid or invalid using either full or shortcut truth tables.

1. $A \vee (B \cdot C)$
 $B \supset A$ / $A \cdot B$
INVALID
2. $Q \vee (P \supset Q)$
 $R \cdot Q$
 P / $Q \supset P$
VALID
3. $P \equiv Q$
 $R \vee (Q \cdot P)$ / $R \cdot P$
INVALID
4. $Q \cdot R$
 $R \vee S$
 $Q \supset S$ / S
VALID
5. $[P \vee (Q \cdot R)] \supset S$
 $S \vee (Q \cdot P)$
 $S \cdot R$ / $R \supset S$
VALID
6. $(R \vee \sim S) \supset \sim(P \cdot Q)$
 $\sim S \vee \sim Q$ / $\sim R \supset P$
INVALID
7. $\sim(\sim S \vee Q) \cdot (P \vee R)$
 $\sim Q \cdot \sim R$
 $\sim P$ / $\sim S$
VALID
8. $P \supset (Q \vee \sim R)$
 $Q \supset \sim R$ / $P \supset \sim R$
VALID
9. $A \supset B$
 $A \supset C$
 $B \vee \sim C$ / $\sim A$
INVALID
10. $P \supset Q$
 $\sim R \supset (P \vee S)$
 $S \vee \sim Q$ / $R \vee S$
VALID