

Name: _____

Rules of Replacement Worksheet

Prove each statement below using the Rules of Replacement and the Rules of Inference.

A.

1. $\sim Q$
2. $R \supset Q$
3. $\sim S \supset M$
4. $R \vee (S \supset Q) \quad / M \vee K$

B.

1. $(P \vee Q) \supset S$
2. $P \vee (Q \vee R)$
3. $\sim R$
4. $\sim T \supset R \quad / S \equiv T$

C.

1. $P \supset (Q \vee R)$
2. $S \supset \sim(Q \vee R) \quad / \sim(P \cdot S)$

D.

1. $(P \vee Q) \supset \sim R$
2. $P \cdot (S \vee R)$
3. $(N \cdot M) \cdot L \quad / N \cdot S$

E.

1. $\sim R \vee \sim S$
2. $P \vee [Q \vee (R \cdot S)]$
3. $L \supset \sim P \quad / L \supset Q$

F.

1. $\sim Q$
2. $M \supset Q$
3. $\sim R \vee (S \supset M) \quad / \sim R \vee \sim S$