

Practice Exam 2

18 Rules:

Use the 18 rules of inference to derive the conclusion of the following arguments. Do **not** use either conditional proof or indirect proof.

a.

1. $K \vee (S \cdot N)$
2. $\sim(K \cdot \sim Q)$
3. $\sim(N \cdot \sim Q)$ / Q

b.

1. $M \supset (R \cdot E)$
2. $(E \vee H) \supset G$ / $M \supset G$

c.

1. $\sim(O \supset R) \supset S$
2. $O \supset \sim S$ / $\sim O \vee R$

d.

1. $\sim I \supset (K \supset \sim R)$
2. $I \supset (K \supset A)$
3. $A \supset M$
4. $K \cdot \sim M$ / $\sim(R \vee I)$

Conditional Proof:

Use the 18 rules of inference and the conditional proof method to derive the conclusion of the following arguments. Do **not** use indirect proof.

e.

1. $P \supset (I \supset W)$
2. $I \supset (W \supset \sim S)$ $/ P \supset (I \supset \sim S)$

f.

1. $(G \cdot \sim P) \supset K$
2. $E \supset Z$
3. $P \supset \sim Z$
4. $G \supset (L \vee E)$ $/ (G \cdot \sim L) \supset K$

Indirect Proof:

Use the 18 rules of inference and the indirect proof method to derive the conclusion of the following arguments. Do **not** use conditional proof.

g.

1. $C \supset (D \supset H)$
2. $D \cdot \sim H$
3. $H \vee T$ $/ \sim C \cdot T$

h.

1. $(P \vee F) \supset (A \vee D)$
2. $A \supset (M \cdot \sim P)$
3. $D \supset (C \cdot \sim P)$ $/ \sim P$