

## Practice Problem Set 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.  $K \cdot \sim M$  /  $\sim(R \vee I)$

e..

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