For each argument, construct a proof using the natural deduction system described in Chapter 16. The inference rules we have learned at this point are just R, ∧I, and ∧E (introduced on pages 114–119). The premises are separated by commas, and the conclusion comes after the "therefore" symbol, which is "∴" (as introduced on page 2).

1. $R \rightarrow S \therefore R \rightarrow S$

2. $A \wedge B \therefore B \wedge A$

3. $G \vee \neg H, J \wedge K \therefore J \wedge (G \vee \neg H)$

4. $(C \rightarrow D), (D \rightarrow E), (E \leftrightarrow G) \therefore [(C \rightarrow D) \wedge (D \rightarrow E)] \wedge (E \leftrightarrow G)$

5. $D \wedge (E \wedge F) \therefore (E \wedge D) \wedge F$