

1. (15%) Given P1:  $(A \wedge B) \Rightarrow C$

P2:  $(A \Rightarrow C) \Rightarrow D$

P3:  $\sim B \vee E$

C:  $B \Rightarrow (D \wedge E)$

Prove that  $P1, P2, P3 \vdash C$ .