

## Exercise sheet 2

1. Prove that the following are tautologies.

a)  $P \wedge Q \Rightarrow P$

b)  $((P \Rightarrow Q) \wedge (Q \Rightarrow R)) \Rightarrow (P \Rightarrow R)$

c)  $((P_0 \Rightarrow P_1) \wedge (P_1 \Rightarrow P_2) \wedge \dots \wedge (P_{n-1} \Rightarrow P_n)) \Rightarrow (P_0 \Rightarrow P_n)$

**To be completed**