## QUIZ 2

Answer the following true or false. If false, explain why.

(1) This is a valid natural deduction proof of  $B \vdash A \rightarrow B$ 

$$\frac{B}{A \to B}$$

(2) This is a valid natural deduction proof of  $\neg(A \lor B) \vdash \neg A$ 

$$\frac{\neg (A \lor B)}{\neg A} \quad \frac{\neg}{A} \quad 0$$

$$\frac{\bot}{\neg A} \quad 0$$

(3) This is a correct truth table for  $A \to (B \vee C)$ 

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A	B	C	$A \to (B \lor C)$
T	T	T	T
F	T	T	F
T	F	T	T
T	T	F	T
F	F	T	T
F	T	F	T
T	F	F	F
F	F	F	T