作业-3

1 利用演绎定理在PC中证明

(1) $\vdash (B \to A) \to (\neg A \to \neg B)$
(2) $\vdash (A \to B) \to ((B \to C) \to (A \to C))$
(3) $\vdash ((A \to B) \to A) \to A$
(4) $\vdash \neg(A \to B) \to (B \to A)$

2 将PC中公理3改成$(\neg A \to B) \to ((\neg A \to \neg B) \to A)$，记所得系统为PC1。

证明:

(1) $\vdash_{PC} (\neg A \to B) \to ((\neg A \to \neg B) \to A)$
(2) $\vdash_{PC1} (\neg A \to \neg B) \to (B \to A)$