

- Write only your student number (not your name) on every page you hand in, to enable anonymous grading.
  - Please staple pages together.
  - Please write your tutorial group on the first page.
- 

### Homework exercise 2

1. Using truth tables, determine whether the inference  $((p \supset q) \supset p) \models p$  is valid in:
  - (a)  $K_3$
  - (b)  $L_3$
  - (c)  $RM_3$

Write down the whole truth tables and explain your answers.

2. The context of this part of the exercise is the system  $LP$ .  
Prove for all interpretations  $v$  and all formulas  $A$ , if  $v(A) = i$ , then there is a propositional parameter  $p$  occurring in  $A$  such that  $v(p) = i$ .  
(Hint: use induction.)