

**QUIZ # 4 - MATH 1090 - OCTOBER 4, 2002**

MIKE ZABROCKI - SECTION C - MWF 3:30- 4:20

- (1) Prove that  $p \vee (p \equiv true) \equiv p$  is a theorem using any of the theorems (3.1) through (3.32) in your proof.

$$\begin{aligned} & p \vee (p \equiv true) \equiv p \\ & = \langle (3.3) \text{ with } q := p \rangle \\ & p \vee p \equiv p \quad - \quad (3.26) \end{aligned}$$

Therefore  $p \vee (p \equiv true) \equiv p$  is a theorem.