



Core Logic

2004/2005; 1st Semester
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Homework Set # 3

Deadline: September 29th, 2004

Exercise 5.

The following three pseudo-syllogisms are sometimes called “indirect moods of the first figure”:

$AeB, BaC : CeA$ **Celantes**,
 $AaB, BiC : CiA$ **Dabitis**,
 $AaB, BeC : CoA$ **Fapesmo**.

- (1) Why aren't these real syllogisms? (1 point)
- (2) Each of these “indirect moods” corresponds to one of the valid moods of the fourth figure. Find the right mood and explain the correspondence. (3 points)
- (3) Explain all of the letters in the names **Celantes**, **Dabitis** and **Fapesmo** in terms of the medieval mnemonics. For this, give a formal proof of the indirect moods from the perfect syllogisms. (8 points)

Exercise 6.

- (1) Give a formal proof of **Baroco** ($BaA, BoC : AoC$) and **Camestres** ($BaA, BeC : AeC$), explaining all the letters in the names. (6 points)
- (2) Why should **Camestrop** ($BaA, BeC : AoC$) rather be called **Camestrops**? (2 points)

Exercise 7.

A categorical proposition is called **particular** if it has ‘i’ or ‘o’ as a copula. Let μ be a mood such that both premises of μ are particular. Argue that $BCDF \not\vdash \mu$. (5 points)

Hint. We showed a similar meta-theorem in the lecture: No valid mood can have two negative premises.