Core Logic
2005/2006; 1st Semester
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Homework Set # 3　　　　　　　　　　　　　　*Deadline:* September 27th, 2005

Exercise 6 (8 points).

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? (½ 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. (1½ 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. (6 points)

Exercise 7 (5 points).

(1) Give a formal proof of **Baroco** (BaA, BoC: AoC) and **Camestres** (BaA, BeC: AeC), explaining all the letters in the names. (4 points)
(2) Why could **Camestrop** (BaA, BeC: AoC) rather be called **Camestrops**? (1 point)

Exercise 8 (7 points).

A categorical proposition is called **particular** if it has 'i' or 'o' as a copula. Let M be a mood such that both premises of M are particular. Argue that $\text{BCDF} \nvdash M$. (7 points)
Hint. We showed a similar meta-theorem in the lecture.

Exercise 9 (2 points).

Read

> Fred **Richman**, Equivalence of Syllogisms, **Notre Dame Journal of Formal Logic** 45 (2004), p.215-233

(a preprint version of the paper is linked on the course webpage) and give a very brief explanation (one or two sentences) of what he calls a *nonstandard figure* (2 points).