

Syllogistics II

1. Rewrite these syllogisms in the *standard* form (major, minor, conclusion) and name its mode and figure (i.e. its Latin name).
 - (a) All proteins are organic compounds, and since all enzymes are organic compounds, all enzymes are proteins.
 - (b) No nuclear-powered submarines are commercial vessels, so no warships are commercial vessels, since all nuclear-powered submarines are warships.
 - (c) Some Tories are not advocates of high taxes, because all advocates of high taxes are conservatives, and some conservatives are not Tories.¹
 - (d) Some politicians have a liver problem. This is because some politicians drink, and all drinkers have a liver problem.
 - (e) All philosophers like logic. But since some politicians do not like logic, some politicians are not philosophers.
 - (f) All dogs run after sticks, and since all dogs bark as well, some barkers run after sticks.
 - (g) No philosopher likes soap operas, for no philosopher likes dull things, and soap operas are dull.

2. Invent your own syllogisms, or formalise an argument from the media or elsewhere. Identify its mode and figure.

3. Test the validity of the following syllogistic forms by means of a Venn diagram.

Option. If a syllogism is invalid, explain it with the rules listed on Handout 11.

 - (a) Figure I, A-E-E²
 - (b) Figure II, E-I-O
 - (c) Figure III, O-A-O
 - (d) Figure IV, A-O-O
 - (e) Figure IV, E-I-O
 - (f) Figure II, O-A-O
 - (g) Figure I, A-O-O
 - (h) Figure III, E-A-E

1 (b) and (c) from Copi, I. M. (1972). *Introduction to Logic*. New York: Macmillan (p. 184).

2 The figure is relevant because of the arrangement of the subject and predicate terms (or the position of the middle term). The first example hence is: MaP, SeM ⊢ SeP. (Some examples from Copi, *op. cit.*, p. 197.)

