

Exercises to 2.4 Syllogisms

(1) *The following arguments are syllogisms. Which are the minor, the major, and the middle terms? Which are the major and the minor premises? Restate them in standard form and represent them symbolically. Specify their mood and figure.*

- 1) Some space bodies move in elliptical orbits, because all planets are space bodies and all planets move in elliptical orbits.
- 2) All ducks have two legs, so Socrates is a duck because Socrates has two legs.
- 3) Some wealthy people are ambitious; therefore, some ambitious people are bankers inasmuch as all bankers are wealthy people.
- 4) *The ontological argument:* God exists because every supremely perfect being exists and God is supremely perfect.
- 5) All animals are organisms and all birds are animals; it follows that some organisms are birds.
- 6) No criminal is a noble person, because every noble person respects the law while no criminal respects the law.
- 7) All poets are delicate people but some poets are soldiers; consequently, some soldiers are delicate people.
- 8) All birds can fly and some domestic animals are not birds; hence, some domestic animals cannot fly.
- 9) No despotic government leads to a progress; so, because every good form of government leads to progress, no good form of government is despotic.
- 10) All proteins are organic compounds; hence, as all enzymes are organic compounds, all enzymes are proteins.

(2) *Use conversion and the valid syllogisms in the first figure to prove the validity of the following syllogisms:*

- 1) EIO-2
- 2) AEE-2
- 3) AII-3
- 4) EAO-3
- 5) OAO-3
- 6) AAI-4
- 7) EIO-4