Philosophy 405: Knowledge, Truth and Mathematics Russell Marcus Hamilton College rmarcus1@hamilton.edu

<u>Reading Guide #13 - Conventionalism</u> Carnap, "Empiricism, Semantics, and Ontology" Ayer, "The A Priori"

Carnap

- 1. What problem faces the empiricist nominalist?
- 2. How are abstract entities used in semantics?
- 3. What is a linguistic framework?
- 4. Distinguish internal questions from external questions. How is the question whether an object is real different as an internal and an external question?
- 5. Are we free to use thing language? Explain.
- 6. How do we decide whether to adopt a linguistic framework?
- 7. Are there numbers? Are there proposition?
- 8. How are external questions pseudo-questions?
- 9. How does one introduce a linguistic framework?
- 10. What are the two kinds of answers to internal questions?
- 11. "Some contemporary nominalists label the admission of variables of abstract types as "Platonism". This is, to say the least, an extremely misleading terminology. It leads to the absurd consequence, that the position of everybody who accepts the language of physics with its real number variables (as a language of communication, not merely as a calculus) would be called Platonistic, even if he is a strict empiricist who rejects Platonic metaphysics" (215). Explain.
- 12. What is the 'Fido'-Fido theory? How does Carnap criticize it?
- 13. How is the question whether numbers exist a pseudo-question? How might it be resolved?
- 14. How could critics of abstract entities defend their elimination?

Ayer

- 1. How does logical empiricism differ from traditional empiricism?
- 2. What are the two options for the logical empiricist regarding mathematics?
- 3. How does Ayer criticize Mill's view of mathematics?
- 4. How do we respond to purported counter-examples to mathematical or logical claims?
- 5. How does Ayer criticize Kant's definition of analyticity? How does Ayer define analyticity?
- 6. Are analytic statements meaningful?
- 7. Is analyticity a property of individual sentences or of logical systems?
- 8. Does the failure of logicism affect the analyticity of mathematics? Explain.
- 9. How does Ayer argue that geometry is not synthetic?
- 10. What does the use of diagrams in geometry show?
- 11. "It is perfectly conceivable that we should have employed different linguistic conventions from those which we actually do employ. But whatever these conventions might be, the tautologies in which we recorded them would always be necessary" (84). Explain.
- 12. Why does Ayer need to explain how mathematics is surprising? How does he explain that fact?