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

Reading Guide #24 - Autonomy Platonism

Russell Marcus, "Chapter 9: Two Versions of Autonomy Platonism, §3-§7"

- 1. Describe the two constraints on autonomy platonism.
- 2. Describe McEvoy's sketch. What two tasks remain to develop it into an epistemology?
- 3. What is a mathematical intuition?
- 4. How does mathematical intuition mediate recognition of the modal character of mathematical belief?
- 5. What does taking intuition to be an *a priori* method of belief acquisition entail?
- 6. Are mathematical claims necessarily true? Explain.
- 7. Can empirical methods of belief acquisition yield mathematical beliefs? Explain.
- 8. How do mathematical intuitions differ from beliefs?
- 9. Describe Cheyne's argument against mathematical intuition. How does he distinguish intuition from conceptual knowledge?
- 10. Could mathematical intuition be unreliable? Explain.
- 11. Is mathematical intuition amenable to scientific investigation? Explain.
- 12. Is the variability of people's mathematical intuitions a problem for intuition-based autonomy platonism? Explain.
- 13. How are intuition-based autonomy platonism and mind-body dualism similar views? How are they different?
- 14. What is Russell's view of the relationship between our beliefs in the axioms of mathematics and our beliefs in mathematical theories?
- 15. What three tools guide the construction of mathematical theories?
- 16. In what two ways can intuition steer us wrong in constructing mathematical theories?
- 17. Describe the method of seeking reflective equilibrium in mathematics. What is its relationship to ordinary mathematical methods?
- 18. What is the access problem? How does Quine's approach to ontology solve the access problem?
- 19. How is the argument for intuition-based autonomy platonism an inference to the best explanation?
- 20. How might the argument for intuition-based autonomy platonism be circular?