

## Reading Assignment 10: Analysis, Arithmetic, and Geometry

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### REQUIRED READINGS

- Bos 2001.
- Sections 1.1-1.4, 1.6
  - Chapter 3 pages 37-41; Sections 3.4-3.5, 3.7;
  - Section 5.1, 5.3
  - Chapter 6.

### QUESTIONS

1. Describe Pappus' three-fold division among geometric problems.
2. Explain Pappus' precept in your own words.
3. What is the difference between analysis and synthesis?
4. According to Bos, what were three reasons for mathematicians failure to integrate geometry and arithmetic prior to the seventeenth century?

### REFERENCES

- [1] H. J. Bos. *Redefining geometrical exactness: Descartes' transformation of the early modern concept of construction*. Springer, 2001.