# Philosophy of Mathematics – Essay 4
## (Intuitionism)

**Readings:**

- **(!) Shapiro, S., *Thinking About Mathematics*, OUP (2000), chapter 7** ('Intuitionism').
- **(!) Heyting, H., 'The Intuitionist Foundations of Mathematics'**, in B&P.
- **(!) Dummet, M., 'The philosophical basis of intuitionistic logic'**, in B&P.
- **Heyting, H., 'Disputation'**, in B&P.
- **Brouwer, L.E.J., 'Intuionism and Formalism'**, in B&P.

**Essay Questions:** What is intuitionism? What is the difference between Brouwer's motivations for intuitionism and Dummett's motivations? Intuitionism recommends a revision of classical logic and mathematics, based on a philosophical view. What are the revisions, and are they well motivated? Is it acceptable that a *philosophy of mathematics* should dictate how *mathematics* should be done?