

EXAM 2 STUDY GUIDE

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Phil of Math

- Thursday, December 17, 12:00 pm, in our usual classroom.
- Closed-book, closed notes
- Worth 40% of your course grade

This exam will cover all the material since the midterm: term formalism and everything after that.

The format will be similar to that of the midterm: a mixture of true/false or fill-in-the-blank type questions, on the one hand, and short-answer/short essay on the other.

You don't need to memorize, word-for-word, anything on the handouts. But you do need to understand the philosophical problems, theories, and arguments that were discussed in class.

Here are some examples of the types of questions I might ask:

- True or false: "Term formalists think that statements of arithmetic (such as ' $2 + 2 = 4$ ') are true"?
- True or false: "Intuitionists accept the law of the excluded middle"?
- One-word answer: who thinks that our beliefs about mathematical objects are analogous to perceptual beliefs?
- Short answer: what does Gödel's first incompleteness theorem say?
- Short answer: what are impure mathematical objects?
- Short essay: what is Quine's idea of the "web of belief"? How does this idea help with the justification of mathematical beliefs?

To prepare for the exam, I recommend using the handouts (which are on the website) to organize your studying: they list the main theories, issues, arguments, etc. But they only provide a kind of outline; to fill in the details, you'll also need to review the book and/or your class notes.