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## MATHEMATICAL ANTI-REALISM AND MODAL NOTHINGISM

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## Mathematical Anti-Realism and Modal Nothingism

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**Abstract:** This Element defends mathematical anti-realism against an underappreciated problem with that view – a problem having to do with modal truthmaking. The first part develops mathematical anti-realism, defends that view against a number of well-known objections, and raises a less widely discussed objection to anti-realism – an objection based on the fact that (a) mathematical anti-realists need to commit to the truth of certain kinds of modal claims, and (b) it's not clear that the truth of these modal claims is compatible with mathematical anti-realism. The second part considers various strategies that anti-realists might pursue in trying to solve this modal-truth problem with their view, argues that there's only one viable view that anti-realists can endorse in order to solve the modal-truth problem, and argues that the view in question – which is here called modal nothingism – is true.

This Element also has a video abstract: [www.cambridge.org/Philosophy of Mathematics\\_Balaguer\\_abstract](http://www.cambridge.org/Philosophy_of_Mathematics_Balaguer_abstract)

**Keywords:** mathematical anti-realism, modality, error theory, truthmaking, abstract objects

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