M1C03 Lecture 33
$\sqrt{2}$

Jeremy Lane

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Announcement(s)

1. Quiz due friday
2. Assignment 5 posted

Today we will explore $\sqrt{2}$.

Reference: Lakins, Section 9.1 and 9.2.

$\sqrt{2}$ is a real number

Theorem

There exists a positive real number that solves the equation

$$x^2 = 2.$$

$\sqrt{2}$ is irrational

Theorem

$\sqrt{2}$ is not a rational number.

$\mathbb{Q}$ does not satisfy the completeness axiom