

GUEST SPEAKER: Guess who likes to live dangerously? That's right. Set theorists. Or, more generally, mathematicians. To this day, we have no standard definition of what they do.

The 20th century mathematician Bertrand Russell said that math is the subject where we don't really know what we're doing nor whether it is true. And actually, that's not that much of an exaggeration. Mathematics is highly ambiguous and mysterious still. Take, for example, the supported and yet unanswered question--

Is mathematics real? Is the arithmetic we learn in elementary school true? We believe that it's true, because, well, it's worked so well for us. But, as young logician Kurt Godel proved, we can never know for sure.

In short, math is messy. There's no way around that. So what exactly does this mean for us? Why do set theorists continue to live on the edge of this shaky mathematical precipice? Could machines really be smarter than humans? And could *The Matrix* scenario really happen to us? Luckily, Godel answers that and so much more.