

Why Does It Even Matter? Nothing REALLY does Matter.

By Lauren Pierson

Lauren: Welcome to our first episode of “Why Does It Even Matter?”.

Lauren: This episode is going to start with the most crucial question, does nothing matter? I am not trying to be a pessimist. I am referring to the number that means nothing, or zero. So in that case, does nothing really matter?

Cue the line “Nothing Really Matters to Me” from Bohemian Rhapsody by Queen at second 13.

Fade music out after 30 seconds (around 45.5 seconds).

Lauren: Well, if it matters to Queen, I guess it should matter to us. Really, why does nothing matter? The first records of the number zero being used was with the Babylonian number system. The Babylonian system of numbering was “like an abacus inscribed symbolically onto a clay tablet” (Seife). This was different than the other number systems at that time, such as the Greek or the Roman. Roman numerals have a separate symbol to represent every single number. The Babylonians used a base 60 in which once they reached the number 60, they would repeat the symbols, just like in an abacus. The problem that this created was that the number 1 and the number 60 were the EXACT same symbol. In an abacus, they would be on different rows, so it wasn’t a problem, however, on a clay tablet, they could not distinguish between rows. This was a HUGE problem, especially with more complicated numbers. However, around 300 B.C. the Babylonians started to represent this “empty space” or an empty column with a symbol that looked like two slanted wedges. At this point, the number zero was born, and how great of number it is.

The number zero is crucial to the world of mathematics. Past being a place holder, it is plays a major role in the understanding of more complicated mathematics. For example, zero is the gateway between the positive numbers and the negative numbers. It is also crucial to the complex world of calculus, where we define limits as approaching zero, integrals as starting at zero, and even derivatives as equaling zero. The unique properties of it have changed proofs as we know it. Think of how often we “add 0” in different forms, because anything minus itself is nothing. Despite the praise it currently receives, it was seen as “evil” for years because it behaves differently than the other numbers. When we you think about multiplying by zero, dividing by zero, or anything to the power of zero, it has some weird results. Can you think of another number where anything we multiply it by, we still get the same number? Because of the relationship of multiplication and division, we cannot divide anything by it, and it is the only number that we cannot set to the power of itself. Weird, right?

Despite being undefined and indeterminate for years, the number zero has changed our world. After all, the only difference between one dollar and one million dollars is a few zeroes. Zero, although underappreciated, was a turning point to the world of mathematics. Although it means nothing to some people, Zero means everything to the world of mathematics. So let us join with Queen in saying Nothing Really Matters to Me, and help others learn how much it matters too.

Add music to fade until the end (3:09.5 to 3:29.5)

Quotations and information about the number zero came from *Zero: The Biography of a Dangerous Idea* by Charles Seife. Music is Bohemian Rhapsody by Queen. I do not own any part of this song, and full rights belong to Queen.