

**THE REASONABLE EFFECTIVENESS OF MATHEMATICS**  
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**INTRO**

**Many things in nature can be described by mathematics...**

**Fractals**

**Fibonacci sequence**

**...and mathematics helps us *discover* new things.**

**Math is also often elegant and beautiful.**

**Why is it so effective?**

**See Eugene Wigner's 1961 paper, "The Unreasonable Effectiveness of Mathematics."**

**EXAMPLES OF THE POWER OF MATH**

**Sir Edmund Halley**

**Urbain Le Verrier**

**Peter Higgs and the Higgs boson**

**Math came first, then confirmation.**

**Why is math so effective?**

**POSSIBLE EXPLANATIONS**

## INDICATIONS IN THE BIBLE THAT MATH SHOULD BE USEFUL

God clearly assumes the utility of numbers for a variety of tasks...

Counting (Ezra 2:2)

Keeping track of time (Matt. 20:1-34; Rev. 11:3).

Measuring distance, area (Ezekiel 48:8-11), and volume (John 2:6).

Most basic axioms of arithmetic are assumed in the Bible.

God values order:

1 Corinthians 14:40 But all things should be done decently and in order.

Psalm 19:6 The sun rises at one end of the heavens and follows its course to the other end. Nothing can hide from its heat.

Nicolaus Copernicus (1473 – 1543): Celestial objects in the night sky are “...established in the finest order and directed by divine management...contemplation of them and a certain familiarity with them stimulate [man] to the best and to admiration for the Maker of everything.”

Isaac Newton (1642 – 1727): “This most beautiful system of the sun, planets, and comets could only proceed from the counsel and dominion of an intelligent and powerful Being. This being governs all things... and on account of his dominion he is wont to be called Lord God, or Universal Ruler.”

“The order of reasoning here is important. The early scientists did not argue that the world was lawfully ordered, and therefore there must be a rational God. Instead, they argued that there was a rational God, and therefore the world must be lawfully ordered.” – Charles Thaxton and Nancy Pearcey, *The Soul of Science*, p. 26.

## BEAUTY IN MATH

Bertrand Russel for example...

“Mathematics, rightly viewed, possesses not only truth, but supreme beauty, a beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trappings of painting or music, yet sublimely pure, and capable of a stern perfection such as only the greatest art can show.” – Bertrand Russell, *Study of Mathematics*

$$e^{i\pi} + 1 = 0$$

$\pi$

$e$

$i$

## SO WHERE DOES MATH COME FROM?

Colossians 1:16 For by him all things were created: things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things were created by him and for him.

**Eugene Wigner's final words in "The Unreasonable Effectiveness of Mathematics:**

**"The miracle of the appropriateness of the language of mathematics for the formulation of the laws of physics is a wonderful gift which we neither understand nor deserve. We should be grateful for it and hope that it will remain valid in future research and that it will extend, for better or for worse, to our pleasure, even though perhaps also to our bafflement, to wide branches of learning."**

## **WHAT CAN YOU DO WITH THIS INFORMATION?**

**Do you have a sense of wonder and curiosity about the world?**

**Psalm 8:3 When I look at the night sky and see the work of your fingers— the moon and the stars you set in place— 4 what are mere mortals that you should think about them, human beings that you should care for them? 5 Yet you made them only a little lower than God and crowned them with glory and honor. 6 You gave them charge of everything you made, putting all things under their authority... 9 O LORD, our Lord, your majestic name fills the earth!**

**Are you ready to have a conversation?**