

## 5() Mathematical Quotations



Mathematics is the queen of the sciences and number theory is the queen of mathematics.

Carl Friedrich Gauss



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It is impossible to be a mathematician without being a poet in soul.

Sofia Kovalevskaya



If I have been able to see further, it was only because I stood on the shoulders of giants.





Only dead mathematics can be taught where the attitude of competition prevails; living mathematics must always be a communal possession.

Mary Everest Boole



Do not worry about your difficulties in Mathematics. I can assure you mine are still greater.

Albert Einstein





Reserve your right to think, for even to think wrongly is better than not to think at all.

Hypatia of Alexandria



That I have been able to accomplish anything in mathematics is really due to the fact that I have always found it so difficult.





Your reward will be the widening of the horizon as you climb. And if you achieve that reward, you will ask no other.

Cecilia Payne-Gaposchkin



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I wouldn't even think about playing music if I was born in these times, I'd probably turn to something like mathematics. That would interest me.

Bob Dylan



It's not only the question, but the way you try to solve it.

Maryam Mirzakhani



There is no data that can be displayed in a pie chart, that cannot be displayed better in some other type of chart.

John Tukey



Some people think maths is all about getting the right answers, when it's actually about asking the right questions.

Eugenia Cheng



Maths is the only place where truth and beauty mean the same thing.

Danica McKellar



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## It is by logic we prove, it is by intuition that we invent.



Henri Poincaré



What is beautiful in mathematics is that which makes abundantly clear to us that they are not something which we have manufactured ourselves. That thing is contradiction. ... The beauty of mathematics lies in contradiction.

Simone Weil





If I feel unhappy, I do mathematics to become happy. If I am happy, I do mathematics to keep happy.

Alfred Rényi



Algebra is nothing more than geometry, in words. Geometry is nothing more than algebra, in pictures.

Sophie Germain



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I draw little pictures and try this thing and that thing. I'm interested in how ideas fit together. Actually, I'm very geometric in my thinking. I'm not really interested in numbers.

Mary Ellen Rudin



I rarely go any place where there is no mathematics.

Paul Erdös



Just as learning the historical context of a painting or a novel can significantly and permanently change your perception of and personal attachment to it, learning mathematics changes the way you view nature, art, and music.

Holly Krieger



The qualities of numbers exist in a musical scale, in the heavens, and in many other things.





It matters little who first arrives at an idea, rather what is significant is how far that idea can go.

Sophie Germain



## Mathematics is no more computation than typing is literature.



John Allen Paulos



I see a certain order in the universe, and maths is one way of making it visible.

May Sarton



A mathematician is a machine for turning coffee into theorems.

Alfred Rényi



There's barely any aspect of our modern lives that hasn't had a mathematical contribution at some point; everything from politics to films, to everyday decision-making, to animals making football predictions.



Hannah Fry



Young man, in Mathematics you don't understand things. You just get used to them.

John von Neumann



The beauty of mathematics only shows itself to more patient followers.

Maryam Mirzakhani



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No human investigation can be called real science if it cannot be demonstrated mathematically.

Leonardo da Vinci



It is magic until you understand it, and mathematics thereafter.

Bharati Krishna Tirtha



Have you noticed that the astronomers and mathematicians are much the most cheerful people of the lot?

Dorothy L. Sayers



## Reason is the slow and tortuous method by which those who do not understand the truth discover it.





Maths shows what is. It is the language of unseen relations between things. But to use and apply that language, we must be able to fully to appreciate, to feel, to seize the unseen, the unconscious.





There is nothing as dreamy and poetic, nothing as radical, subversive, and psychedelic, as mathematics. It is every bit as mind blowing as cosmology or physics and allows more freedom of expression than poetry, art, or music.

Paul Lockhart



To Thales the primary question was not 'What do we know?' but 'How do we know it?'








Statistical thinking will one day be as necessary for efficient citizenship as the ability to read or write.

H. G. Wells



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Let's face it; by and large maths is not easy, but that's what makes it so rewarding when you conquer a problem and reach new heights of understanding.

Danica McKellar





Imaginary numbers are a fine and wonderful refuge of the divine spirit almost an amphibian between being and non-being.

Gottfried Leibniz



She had not understood mathematics until he explained to her that it was the symbolic language of relationships. "And relationships," he had told her, "contained the essential meaning of life."





Beauty is the first test: there is no permanent place in the world for ugly mathematics.

G. H. Hardy



Some things will drop out of the public eye and go away, but there will always be science, engineering and technology. And there will always, always be mathematics.

Katherine Johnson



So far, all of reality seems to be described by exquisite, elegant mathematical equations. We can't stop now - it's got to be beautiful all the way down.

Katie Mack



The greatest challenge to any thinker is stating the problem in a way that will allow a solution.

Bertrand Russell



Think about what it means to find something beautiful. For me, it's feeling of joy, awe, and reverence. It gladdens the heart and lights up the eye.

Mathematics is beautiful as it elicits the same emotions in us. It is awe-inspiring and joyinspiring at the same time.

Ingrid Daubechies



## Where there is matter, there is geometry.





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Although I was first drawn to maths by the certainty it promised, today I find the unanswered questions and the unexpected connections at least as attractive.





In mathematics, the truth is somewhere out there in a place no one knows, beyond all the beaten paths. And it's not always at the top of the mountain. It might be in a crack on the smoothest cliff or somewhere deep in the valley.

Yōko Ogawa



Gel'fand amazed me by talking of mathematics as though it were poetry. I had always thought of mathematics as being much more straightforward: a formula is a formula, and an algebra is an algebra, but Gel'fand found hedgehogs lurking in the rows of his spectral sequences!

Dusa McDuff



Ask yourself dumb questions - and answer them.

Terry Tao



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One moment, you have no clue what some piece of mathematics is saying, and suddenly there's this neurological shift and it clicks into place. Then, not only do you understand it, but it's almost incomprehensible that you didn't understand it five seconds ago. I find that really satisfying.

Holly Krieger

