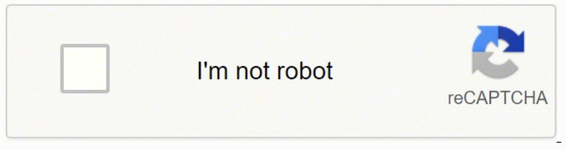
How to understand mathematics easy



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How to understand math. How to understand math equations. How to understand math better. How to understand math easier. How to understand math quickly.

Archimedes was born in Syracuse, a city in Sicily, which was a Greek colony at the time. The father of Archimedes, Phidias, was an astronomer, and probably passed his love for mathematics and science to his son. Archimedes was fascinated with solving mathematical problems throughout his life, and often drew equations and graphics traced on the ground and sometimes even in his stomach with olive oil. Archimedes spent much of his life at the service of King Hiero II of Syracuse. He solved the mathematical problems for the king and developed innovative inventions for the king and his military forces. Mathematical Innovations The inclination of Archimedes to solve mathematical problems led him to develop some of the important mathematical concepts and ideas that we still use today. One of his key innovations was what the "depletion method" called. This method allowed him to calculate the areas of forms, including the circles. The "depletion method" allowed him to quantify the value of IP, the number that allows us to determine the measurements of a circle. Archimedes expanded the "method of exhaustion" to measure parables and determine the relationship between spheres and cylinders. He also worked with first numbers, and was one of the first mathematicians to understand the concept of infinite. The invention that takes its name to many people recalls the name of Archimedes of an invention: the screw of Archimedes. This invention essentially allows the water to flow up. The Archimedes screw consists of a hollow cylinder and a hollow spiral either inside or outside the cylinder. Turning the screw makes the water move from place to place in a plane below one top. Initially, Archimedes applied this invention to get out of the water from a boat, but the Archimedes screw has applications today. Farmers use this method for irrigation in arid places, and wastewater treatment plantsapply to transport water from one place to another. Serving King Hiero II to the service of ArchimedesSyracuse led to other important inventions. Archimedes developed the pulley system to help the king’s sailors move heavy objects up and down the levels of their ships. He also invented the catapult to make it harder for the Roman general Marcellus to invade Sicily, and he also developed the cripple hook. Archimedes would have said to King Hiero, “Give me a lever long enough and a place to stand, and I will move the earth.” The king challenged Archimedes to test his boastfulness, and launched a large ship using a massive lever he developed. Beginning of Archimedes The innovation that probably most benefited King Hiero came to Archimedes in the bath. The king received the gift of a gold crown which he doubted was completely golden. Archimedes observed the movement of the water as it entered the bath, and realized that he could determine the weight of the crown by submerging it. Archimedes got so excited by his discovery that he jumped out of the bathtub and shouted, “Eureka, Eureka!” as he ran through the city, forgetting that he was naked. Legends of Archimedes' death Once the Roman general Marcellus was able to invade Sicily, one of his soldiers killed Archimedes. That is the only fact that historians know, but several legends surround the murder of the mathematician. Some legends say that the soldier killed Archimedes because he mistreated the mathematician’s tools for weapons or gold while others say that the soldier became impatient waiting for Archimedes to finish the problem he was working on. The most enduring legend, and perhaps the most amusing, considers Archimedes the last words. As the soldier ordered the mathematician to stop working and step on the area where he was solving a problem, Archimedes said, “Don’t disturb my circles.” A legacy in mathematics and science studies considers architects one of the most important and influential mathematicians in the world. along with Sir Isaac Newton and Carl Friedrich Gauss, and there are there Memoirs to Archimedes that relate to mathematics and science. Astronomers have named a crater and a mountain range on the moon after it, as well as an asteroid. The International Mathematical Union awards a prize called Medal of Fields, which features Archimedes on the obverse of the medal, along with a quote from him. A math algorithm is a procedure, a description of a set of steps that can be used to solve a mathematical calculus: but they are much more common than that today. Algorithms are used in many branches of science (and everyday life for that matter), but perhaps the most common example is the step-by-step procedure used in the long term. The process of solving a problem in such as “what divides 73 by 3” could be described by the following algorithm: How many times does 3 by 7 come? The answer is 2 How many are left? 1Prut The 1 (Ten) in front of the 3. How many times 3 times do you go into 13? The answer is 4 with a remainder of one. And, of course, the answer is 24 with a remainder of 1. The step-by-step procedure described above is called a long-division algorithm. While the above description may sound a bit detailed and picky, the algorithms are about finding efficient ways to do the math. As the anonymous mathematician says, “mathematicians are lazy, so they are always looking for shortcuts.” Algorithms are for finding those shortcuts. A reference algorithm for multiplication, for example, might be to simply add the same number over and over again. So, 3,546 times 5 could be described in four steps: How much is 3546 plus 3546? 7092 How much is 7092 plus 3546? 10 638 How much is 10 638 plus 3546? 14 184 What is 14 184 plus 3546? 17 730 Five times 3.546 is 17,730. But 3,546 times 654 would take 653 steps. Who wants to keep adding a number over and over again? There is a set of multiplication algorithms for the one you choose will depend on how large your number is. an algorithm is usually the most efficient (not always) way to domath. FOIL (First, Out, Inside, Last) is an algorithm used in algebra that is used in multiplier polynomials: the student remembers solving a polynomial expression in the correct order: To solve (4x + 6) (x + 2), the FOIL algorithm would be: Multiply the first type terms in parentheses (4 times x = 4x2) Multiply the two terms on the outside (4 times 2 = 8x) Multiply the internal terms (6 times x = 6x) Multiply the last terms (6 times 2 = 12) Add all results together to get 4x2 + 14x + 12 The m The BEDMAS method refers to a way of ordering a set of mathematical operations. Algorithms have an important place in any mathematics curriculum. Ancient strategies involve memorizing old algorithms; but modern teachers have also started to develop curricula over the years to effectively teach the idea of algorithms, that there are multiple ways to solve complex problems by breaking them into a set of procedural steps. Allowing a child to creatively invent ways to solve problems is known as the development of algorithmic thinking. When teachers watch students do their math, a big question to ask is, “Can you think of a shorter way to do that?” Allowing children to create their own methods for solving problems expands their thinking and analytical skills. Learning to put into practice procedures to make them more efficient is an important skill in many fields of effort. Computer science continuously improves on arithmetic and algebraic equations to make computers work more efficiently; but so do chefs, who continuously improves their processes to make the best recipe for making a lentil soup or a walnut cake. Other examples include online dating, where the user fills out a form about preferences and features, and an algorithm uses those options to choose a perfect potential companion. Computer video gamesalgorithms to tell a story: the user makes a decision, and the computer bases the following steps on that decision. GPS systems use algorithms to balance readings of various satellites to identify their exact location and best route for their SUV. Google uses an algorithm based on its searches to boost appropriate advertising in its direction. Some writers today even call the 21st century the Era of Algorithms. It is today a way to cope with the huge amounts of data we are generating daily. Additional Sources and Readings Curcio, Frances R., and Sydney L. Schwartz. "There are no Algorithms to Teach Algorithms." Teaching Math to Children 5.1 (1998): 26-30. Print. Morley, Arthur. «Somethings of Teaching and Learning.» For Mathematical Learning 2.2 (1981): 50-51. Print. Rainie, Lee and Janna Anderson. "Depending on the code: Pros and cons of the era of the algorithm." Internet and Technology. Pew Research Center 2017. Web. Accessed on January 27, 2018.