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Reddit and its partners use cookies and similar technologies to provide you with a better experience. By accepting all cookies, you agree to our use of cookies to deliver and maintain our services and site, improve the quality of Reddit, personalize Reddit content and advertising, and measure the effectiveness of advertising. By rejecting non-essential cookies, Reddit may still use certain cookies to ensure the proper functionality of our platform. For more information, please see our Cookie Notice and our Privacy Policy. This post will teach you how to get better at math faster and with less studying. You'll still have to study, but it tells you the right things to focus on. A common issue with most people is that they think math skills are innate. They believe that either you get math or you don't. In high school, I had this issue as well. I figured that I didn't get the math gene and ,because of this, there was no chance of me doing anything in my future that required crunching numbers, writing computer programs, or science. According to psychology, I was a victim of a fixed mindset. I simply didn't think I could actually get better at math. Or at the very least, I wasn't willing to sacrifice the time and energy necessary to get my math grade and number skills up. I was one of those students who actually took pride in my lack of math skills. I avoided challenging myself with more difficult and interesting math and science courses. Beyond what was mandatory, I only took biology so that I could avoid math-heavy physics and chemistry courses If I couldn't rely on memorization to get through the class, I didn't want to study it. I ordered my high school transcripts to look at my math grades. As you can see, I was not. My best math grade was a B in 9th-grade Geometry. It should come as no surprise that I struggled in high school to get even a C in my high school math courses I worked kinda hard to get these C's and D's, but I was lost and had no confidence in my abilities. Even when I graduated in 2003, I figured that it didn't make sense to get a degree in anything that didn't require learning math. So I tried again. This time, my failure would cause me to fail out of college in my third semester in 2004. Fast forward 14 years to 2018. At the age of 33, I not only graduated from Duquesne University with a B.A. in Physics and a minor in Mathematics, but I was also making $1000 per week as a tutor for high school students in physics, chemistry, and math. The official university bulletin announcing graduates of the physics program Academically, I didn't get lower than a B in any of my math classes. Professionally, I was doing such a great job as a tutor that I had a new issue: I had to turn down business. So the question is how did I do it?? Once I truly understood calculus, it was a breeze from there on out! What did I do to finally handle my issues with math? How did I go from being a mediocre student in high school who could barely get basic math concepts to earning a degree that's so math intensive that you automatically get a math minor by completing it? How did I go from someone who was terrified of trigonometry and doing derivatives to someone who got several high school students through AP Calculus and AP Physics? Some students who thanked me for helping them perform well in high school This article details the simple step-by-step method I used to handle my issues with basic arithmetic, help me to understand higher-level calculus, and be able to do every level of math in between. This article will take your abilities to the next level if you want to get better at math. You'll feel more confident when you solve problems with numbers. 1) Believe that you can get it If you're like the typical student, you don't think your brain can understand the concepts. You simply don't think you can do it. This is the single biggest issue you'll face. That's why it's the first step to improving your math skills. You have to sincerely believe that you can learn math. Most people who have an issue with math have simply convinced themselves that they can't get it. They believe that they just weren't born with a mind for math. I know this not only from observation, but from personal experience as well. This is not a helpful mindset for learning. I used to think the same thing about myself. I would rationalize my lack of ability by telling people I'm great at memorizing, but figuring out math wasn't my thing. However, two things eventually changed my mind. A) You're likely at least as smart as the typical math student Despite the fact that the average IQ of mathematics majors is higher, the average SAT score of someone who studies math is a bit more modest. The average SAT score of a math major–someone who devotes four years to studying math–is only 1238 (out of 1600). If that sounds high, I've tutored students to even higher SAT scores who started out in the sub-1000 range. Even if the future math majors score higher on the math section (which makes perfect sense), these findings suggest that overall, they aren't any more intelligent than most people who go to college. When I saw this, I figured that I could understand this subject. From my Major Fields Exam in Physics. In high school, I could barely pass Algebra 2. Now I knew more than 63% of physics majors in the country B) Growth mindset comes from you achievements in other areas Another thing that gave me confidence that I could get math was my experience in boxing. I started boxing at the late age of 22. However, despite this late start, I went on to have a very successful career and overcame many issues throughout the process of becoming a boxer. At first, boxing may seem unrelated to improving at math, but I did not start boxing with any natural talent. I worked hard, paid my dues, and watched myself go from a stumbling amateur to a national champion. My mentality with boxing was that I was going to succeed, no matter what. When I went back to college in my late 20s, I took the same approach with my work. I figured that if I could succeed in boxing with a late start, then this would be easy. These two events were extremely helpful in shifting my mindset. They showed me that there was nothing inherently special about people with decent math skills. At the very least, if I was smart enough to be accepted into college, then I was smart enough for numbers. I also saw that I did one challenging thing by working hard. Think about other areas in your life where you've met challenges but didn't have any initial talent or advantage. You probably had to work hard to make up for lost ground. This will give you confidence in yourself. 2) Take your learning into your own hands If you're like me, you were educated in a public school system. You had limited/non-existent resources for improving your math ability outside of the classroom. If you got a bad explanation or had to endure a subpar math teacher, there was no place you could go for help. Of course, a big problem is that when I was in high school, there were nearly as much help available online. Fortunately, that's no longer the case. There are a plethora of free/low-cost materials online that are very good and extremely helpful. If your teacher isn't getting the job done, learn on your own. Here are a short list of ways to study math: Youtube videos Khan Academy Download problem sets solutions Download pdfs of textbooks For more problems, buy more used textbooks and study guides You'll need resources to improve your understanding. There's no way around that. You'll need to work on many practice problems to grasp many basic concepts. Fortunately, there is a solution on the internet for almost any problem somewhere. You can check if both your process and solution are correct. Take advantage of all of the free resources on the internet. You need to practice math to improve at math. If the explanations in class aren't helping you get things, then there are great Youtube channels and websites out there that are excellent at explaining ideas. 3) Master the fundamentals of numbers and arithmetic Now that you're armed with the proper mindset and know how to acquire resources to practice with let's lay out a good plan to increase your understanding. When most people use the word "arithmetic", they just mean working with numbers and general mathematics. They aren't incorrect, but that's too general for our purposes. In this case, I'm using arithmetic to mean the four basic operations you perform on numbers. Those operations are addition, subtraction, multiplication, and division. These are the basic arithmetic operations. These are the basic building blocks of all mathematics. They are present in all levels of math and permeate your daily life in many seemingly non-mathematical situations. Many of us think we understand them but have problems adding negative numbers, quickly multiplying double-digit numbers, or working with fractions. Here is a list of basic arithmetic skills students of math should master: Performing the basic arithmetic operations on negative numbers. These problems aren't difficult, per se, but they tend to trip up our intuition about numbers. Performing the basic arithmetic operations on fractions. These problems tend to give people fits and halt their journey before it even begins. This intuition will also help you out with measuring and money problems. Quickly being able to multiply one or two-digit numbers by other two-digit numbers. You can solve these problems with calculators, but it does nothing to develop your numerical intuition. Quickly estimate how many times one number can be divided into another. These problems are the kind you'll most encounter in the real world. You don't need to compute the exact number (that's definitely for calculators). A ballpark figure will often suffice. The goal isn't to be a human calculator that can perform amazing feats of mental calculation. Machines are faster, and at this point, it looks like you'll always have access to a calculator (I'm old enough to remember when they used to tell us that we wouldn't always have a calculator). You want a level of comfort when working with numbers. This is necessary for words because we always speak, write, text, and type. With numbers, you have to develop a feel and fluency with them. Arithmetic practice is a good way to achieve this. [A working level of basic math is one of the 12 major reasons why learning math is important. For the other 11 reasons, check out this article on why you should learn math.] Let me tell you about living between textbooks and training camps – as a pro boxer studying physics while serving in the military, I know what it means to need peak performance in both body and mind. I could have gotten Morning Would back then.. This firefighter-created formula doesn't just wake you up – it provides the nootropics to tackle complex calculations, amino acids to maintain fighting strength, and electrolytes to keep you sharp through marathon days. I drank a lot of coffee, but when you're solving differential equations between sparring sessions and PT, you need more than caffeine. You need something that supports both mental acuity and physical performance. Morning Would is built for those who refuse to compromise on either Whether you're challenging your mind, body, or both, this is a can't-miss supplement. Learn more here 4) Hot tip: It's all simple when you can read it 3 simple steps will help you read math and understand it better. Step 1: The symbols and their meaning You have to know that "¾" means "divide 3 into 4 equal parts. You have to know the difference between " -3 + 0" and "3 - 0". This might seem obvious, but I've found that many people lack mathematical aptitude due to not knowing basic stuff like this. Make sure you know the symbols. You should not have to think about what it means to see |-4|. You may not know the answer, but you have to make sure that you at least know what it's asking you. Step 2: Synonyms of the symbols The essence of math is how one thing is always exchangeable for another. In this way, we can make problems easier to work with. "5/7" is the same thing is "5 *(1/7)". Depending on your problem, one form may make more sense to use than another. This doesn't just work for the numbers as well. You can swipe mine here if you don't have a problem-solving process. Learn different ways to express the same idea. For example: Adding a negative number is the same thing as subtracting its positive equivalent. Multiplication is the same thing as adding the same amount as many times you're multiplying it. Dividing a fraction by a number is the same as multiplying by that number's inverse. These are just little examples of learning how to look at math as an interchange of ideas. Some versions of ideas are easier to work with than others. Sometimes, we just need a different perspective to help us realize that we understand what's going on. When you learn to read the symbols, you understand a whole slew of nerdy jokes. Like this. Step 3: How the symbols work together I could have simply titled this "The Order of Operations" section. That would cover most of what this section says and sort out most of the issues you have when it comes to learning math. In case you forgot, the order of operations is as follows: Parenthesis Exponents Multiplication Division Addition Subtraction We usually learn this with the mnemonic "Please Excuse My Dear Aunt Sally". If you grasp nothing else in your math career, I recommend you learn this and its implications. 5) Little discussed tip: Think in pictures to solve problems A big breakthrough in learning math was realizing that everything could be represented with a simple picture. The entire branch of geometry (and, to a lesser extent, trigonometry) relies on visual representation to teach its concept. Taking a piece of paper to sketch can give you new ideas on old topics. A few key visual representations are extremely helpful to know because they're so common. You should familiarize yourself with them to improve your math skills. A) The Number Line This seems simple, but if you understand the number line, you have a visual model for every arithmetic operation possible. You'll understand why multiplying two negatives gives you a positive, why you can't take the square root of a negative number, and why we need imaginary numbers. B) The Cartesian Plane The real benefit of the Cartesian Plane is that it trains you to see relationships between things. Specifically, how one quantity changes based on how another one changes. Algebra gives a lot of people fits because the addition of letters to the number problems is confusing. All the letters represent variables or something that does not have a set value. The equation that the letters appear in merely shows the relationship between the two (or more) changing quantities. The cartesian plane is just dots and lines, but it demonstrates a real-world application of math. Everything depends on something else, and the cartesian plane allows us to see that relationship with all the distracting noise stripped away. C) Area, Volume, and The Fun Behind Shapes The visual representation of any number squared is a square. The visual representation of any number cubed is a cube. That is either painfully obvious, or you just had your mind blown. The real fun begins when you see it applied to other shapes. There are some beautiful relationships between the 2 and 3-dimensional versions of shapes. The idea isn't to memorize the exact relationships but to see that nearly every math idea has a real physical component that can help you grasp the underlying abstract concepts. This makes learning math purposeful, and I always felt like understanding the physical ideas behind the numbers made it more fun and interesting. For more, read how to learn basic physic ideas. Much of math becomes easier to study if you figure out the visual representations of an idea. Every topic you learn can be represented on the number line, the cartesian plane, or in the form of a shape. 6) A modern tip: Use technology to help your problem solving With today's technology, you can go extremely far without a teacher. Some tools will solve the problem for you when it comes to solving math problems. Unlike a simple calculator, these tools also walk you through each step. These are fantastic for figuring out where you went wrong while also showing you how to solve the problem correctly. I spent an entire year working on math problems from various books I downloaded, and nothing helped my math skills improve faster than running my work through one of these programs for feedback. The three I recommend are: Wolfram Alpha Symbolab Chegg Study Regardless of which tool you select, remember what the purpose of using these types of problem solvers is: You want to push yourself as hard as possible to solve the problem. You should check to see that your answer is correct only after you've given a decent effort. These tools are meant to assist your learning, not solve your problems. Unfortunately, many students learn lessons like this the hard way. My favorite tool for solving problems was Symbolab, but for physics, I prefer using Wolfram Alpha. Here's a picture of the Symbolab interface. Checking the answer without pushing yourself to the limit of your knowledge and ability is no better than asking someone for the answer. If you use it this way, you never actually improve your problem-solving capabilities. 7) Be patient and work to get the concepts The goal isn't to be a human calculator or a math genius. It's certainly not to memorize a bunch of different math problems. Sadly, school trains you this way because they depend on funding, and it's a lot easier to teach you to pass a test than learn. The goal is to understand the concept. This is why you need to: Be patient Find great supplemental resources that provide simple explanations of complex ideas Take detailed notes Be willing to challenge your thought process When I was working on my physics degree, I spent a lot of time on the site www.betterexplained.com. I even reached out to the site's writer to thank him for all of his explanations. Another favorite site of mine was Paul's Online Math Notes. This is probably the single best website on clarifying math concepts, from the basic to the advanced. I referenced it several times on my journey. Both of these sites did a fantastic job explaining any new concepts I had trouble with and illuminating old mathematical concepts I never quite understood. They also both have unique approaches, which is extremely helpful for learning math. In addition to the notes from their website, I also took a lot of notes and asked myself many questions. I forced myself to dig deep and truly grasp the material by asking myself questions. There is nothing that facilitates learning more than asking the right questions. Believe that you can learn Take your education into your own hands Master the fundamentals of arithmetic Learn to read math Think in pictures Use technology to help you learn Take time to understand the concepts If you work on solving problems and avoid memorizing everything but the basics, you will go far in whatever math courses you have to take. At the very least, you'll be able to keep up with the students in any mathematics class. The major lesson I learned from my journey is that you can learn anything given enough time. This is the general strategy I used to go from a failing math student to getting a degree in physics. I believe that you can be a great math student with similar improvement if you follow these step-by-step instructions. I was a terrible math student in high school who wrote off mathematics. I eventually overcame my difficulties and went on to earn a B.A. Physics with a minor in math I pieced together the best works on the internet to teach myself Spanish as an adult *I didn't start boxing until the very old age of 22, yet I went on to win a national championship, get a high-paying amateur sponsorship, and get signed by Roc Nation Sports as a profession. I've used this method to progress in mentally and physically demanding domains. While the specifics may differ, I believe that the general methods for learning are the same in all domains. This free e-book breaks down the most important techniques I've used for learning. Get the free book now Download Article Download Article Math is an engaging, rewarding field to study, although it also presents plenty of challenges. If you're struggling with math—whether in or out of a classroom setting—there are plenty of concrete steps you can take to boost your math abilities. If you're a student, don't shy away from asking your instructor for help, and practice good classroom habits like taking notes and asking questions about topics that confuse you. Beyond that, try studying in a distraction-free environment, and review concepts that you're struggling to understand. Listen closely and take detailed notes during math class. If you have any questions, raise your hand or talk to your teacher after class. Before doing homework, review your class notes to solidify the information. Complete your homework on time so you'll be ready for the next class. Start studying for an upcoming exam 3-4 days in advance. Plan to study for about 60 minutes each day so you're fully prepared. 1 Attend every math class. It's tough to get better at math if you skip classes. You'll miss out on valuable instruction if you're absent, and your math skills remain stagnant. Math skills and concepts are cumulative, meaning that what you learn during week 5 of the semester will build on what you learned during week 4. But, if you skipped classes during week 4, you'll almost certainly struggle to pick up the concepts taught in future weeks. If you must miss a class (e.g., if you're sick), email your teacher and ask what information you missed. Politely ask them if you can make up in-class assignments you missed. 2 Listen closely during class. Focusing and paying attention to your teacher can help you get better faster. Write down any problems, equations, or figures that the instructor draws on the board. These will be valuable to refer back to if you get stumped while working on math homework outside of class. If you typically sit with a group of friends who whisper or text during class and distract you from what the teacher is saying, move away from them and sit alone near the front of the room. Advertisement 3 Take notes during class. As the teacher speaks, jot down detailed notes in your best handwriting. It's very likely that what the teacher is saying is important and is something you should remember that will help you study for tests. Writing down what your instructor is saying will help you understand the ideas, and the notes you take will also be a valuable resource when you're studying for a test or quiz.[1] You can take notes either on paper or in a word-processing document on your computer. However, if you have a tendency to get distracted on the internet while you're taking notes with a computer, stick to taking notes on paper. 4 Ask your math teacher for help if you're struggling. If you're confused about something, talk to your teacher. Raise your hand during class and ask a question, or visit your teacher after class with a specific problem. In reality, you're probably not the only one confused, and other students will appreciate your question too.[2] For example, you could say something like, "I'm really struggling with understanding imaginary numbers, and I've read the textbook chapter a few times. Could you explain them to me again?" 5 Study in a group of peers. Study groups are a great way to prepare for a test and improve your math abilities. They let you and your peers ask each other questions about topics that confuse you and review material that's going to appear on an upcoming test or exam. Try studying with flash cards, or working difficult problems together.[3] Keep focused during group study time! If it turns into a social hour, your math skills won't get any stronger. If people start joking around or lose focus, say something like, "Hey guys, I'm glad we're having a good time, but let's keep focused on the math we came here to study." Advertisement 1 Brush up on basic math concepts. Math can be a difficult subject, especially if you don't understand some of the core concepts. More advanced mathematical ideas build on more basic ones, so it is not a bad idea to review concepts and ideas that are a little fuzzy, until they become perfectly clear. For example, brush up on Addition, subtraction, multiplication, and division.[4] These are crucial parts of math, and having a firm grasp on them will help you out in more advanced fields of math, including algebra and trigonometry. 2 Read through the notes you took during class. Take 10 to 15 minutes to re-read the notes you took during the previous math lecture. Your detailed notes won't do you much good if you never refer back to them! When you sit down to do your homework or solve a few math problems, look over what you jotted down. This will keep the steps you'll use to solve an equation or calculate a variable fresh in your mind and prevent any potential misunderstandings.[5] If you're confused by your notes or can't read your own handwriting, try re-reading the chapter of your math textbook that you're currently working through. Doing this will help you to understand the mathematical topics you're currently working on. 3 Complete every problem on your assignments. Instead of viewing homework as an obligation, look at it as a way to improve your skills. To that end, make sure that you do 100% of the problems on each assignment you're given. If you're not quite sure how to do an assigned problem or feel like it's over your head, speak to your teacher after class and ask for their help.[6] If you'd rather not ask the teacher, you could also ask one of your peers or friends how to solve a tricky problem. 4 Work additional problems on your own. Once you've finished your homework, try doing a few more questions. After completing 3 to 5 extra problems, check your answers against those given in the back of the book. If one of your answers is incorrect, check your work and find where you slipped up. Working extra problems is a great way to improve your math skills![7] Let's say you're studying geometry and are having a hard time rotating and reflecting shapes around axes. Work a few problems that deal with this issue. Start with easy problems and work your way to more difficult ones to help yourself master the issue. EXPERT TIP Joseph Meyer Math Teacher Joseph Meyer is a High School Math Teacher based in Pittsburgh, Pennsylvania. He is an educator at City Charter High School, where he has been teaching for over 7 years. Joseph is also the founder of Sandbox Math, an online learning community dedicated to helping students succeed in Algebra. His site is set apart by its focus on fostering genuine comprehension through step-by-step understanding (instead of just getting the correct final answer), enabling learners to identify and overcome misunderstandings and confidently take on any test they face. He received his MA in Physics from Case Western Reserve University and his BA in Physics from Baldwin Wallace University. Hone your mental math skills. Improve your math muscle memory by solving problems without using calculators, paper, or counting aids. Use your mind, memory, lessons, and discussions with your classmates to refine your math skills and improve your problem-solving abilities. 5 Study for tests in advance. Start preparing for exams 3 to 4 days ahead of time. When your teacher says a test is coming up, avoid cramming the night before. Plan to study for about 60 minutes each day to brush up for the test. Re-read the book chapters you'll be tested on and look over your relevant in-class notes to see what mistakes to avoid. If you have time, you could even test yourself with flash cards or form an impromptu study group with your friends.[8] If you find that you've forgotten some of the math lessons or are still struggling with a tricky concept, ask for help! The teacher will appreciate your earnestness and won't mind answering your questions. Advertisement 1 Break down tough problems into smaller parts. Master difficult math concepts by making them seem manageable. Even the most complex math equations are made up of many small, not particularly difficult component steps. Once you figure out what those steps are and how to solve them individually, you'll be well on your way to correctly solving the larger problem.[9] For example, say you're working on a complicated algebra problem that involves dividing 1 variable-filled equation by another. First solve each of the equations above and below the division line, and only then move on to tackling the division. 2 Figure out why you missed the problems that you solved incorrectly. A great way to improve at math is to learn from your own mistakes. This way, you can improve in the specific areas that you're weakest in. After each quiz or test is returned to you, take a look at the problems you missed and review your steps to find out where you went wrong. Then, the next time you come across this kind of problem, you can solve it correctly! For example, maybe you followed the order of operations incorrectly and forgot to solve equations within parentheses first. Do this with your homework, too! Review each assignment after it's passed back to you and figure out where you went wrong on the problems that you missed. 3 Explain tricky concepts to your peers. Teaching a concept to others is a great way to improve your own understanding. You'll be forced to put your math knowledge into words and figure out ways to break large, complicated ideas into smaller, bite-sized bits of knowledge. If you get stuck trying to explain something, refer back to the textbook or ask your teacher for help.[10] Say that a friend from your math class is struggling to understand how to use the quadratic equation. Explain it to them as best you can, and solve a couple of problems with them to make sure you both get it. 4 Apply math concepts to real-world issues. Turn your math problems into something relatable. Math can sometimes feel a little abstract and seem like it doesn't tie into the real world. This doesn't need to be the case, though. Help yourself get better at math by finding ways to tie what you're learning in with your real life. For example, the Pythagorean Theorem has to do with the ways that shapes of different sizes relate to one another.[11] As another example, think of negative numbers. While they may seem irrelevant when you're first learning about them, negative numbers are useful in thinking through ideas like financial debt, which is a concept you should understand. The mathematical constant "e" also has real-life tie-ins and it can help you understand mathematical growing processes. Ask your teacher to help you come up with some additional ways that you can apply math to real-world issues. Advertisement 1 Stay calm and focused during tests. Feeling anxious during a test could lower your overall score. So, take a deep breath before you go into the classroom to stay calm. If you feel yourself tensing up during the test, stand up, stretch your legs, and take a 2–3 minute break to calm down. Also make sure you get a good night's sleep and eat a full, healthy meal before going in for a math test. 2 Remove all distractions. Make your studying environment as distraction-free as possible. Put the cell phone aside and turn off the TV. Don't have anything other than your textbook and a calculator on your desk, as you might be tempted to play with the object and lose concentration. If studying with friends distracts you from your work, plan to do your math work alone.[12] If it helps, you could set a timer (say, for 1 hour) and aim to concentrate on the work before you in the time you've set aside for it. There will plenty of time for the other things later. 3 Work with a tutor. If you're still struggling with math, it might be worth asking a tutor for help. One-on-one learning is often beneficial, since the tutor can answer all of your questions and tailor their teaching style to your learning style. The tutor can also explain concepts in ways that make sense to you, and can give you helpful advice to make learning math easier.[13] A lot of colleges and private high schools offer free math tutoring on the campus. Talk with the admin assistant in the math department or with your teacher or to get connected with a tutor. Advertisement Add New Question Question Can you become good at math later in life? Daron Cam is an Academic Tutor and the Founder of Bay Area Tutors, Inc., a San Francisco Bay Area-based tutoring service that provides tutoring in mathematics, science, and overall academic confidence building. Daron has over eight years of teaching math in classrooms and over nine years of one-on-one tutoring experience. He teaches all levels of math including calculus, pre-algebra, algebra I, geometry, and SAT/ACT math prep. Daron holds a BA from the University of California, Berkeley and a math teaching credential from St. Mary's College. Absolutely! It can take a little bit of time to get really good at math, so don't worry if you're already done with your early schooling. You can always catch up if you're willing to put in some hard work. Question How can I learn math easily? Daron Cam is an Academic Tutor and the Founder of Bay Area Tutors, Inc., a San Francisco Bay Area-based tutoring service that provides tutoring in mathematics, science, and overall academic confidence building. Daron has over eight years of teaching math in classrooms and over nine years of one-on-one tutoring experience. He teaches all levels of math including calculus, pre-algebra, algebra I, geometry, and SAT/ACT math prep. Daron holds a BA from the University of California, Berkeley and a math teaching credential from St. Mary's College. Math is one of those classes where each new concept builds on a previous concept. It's not like English class where you don't necessarily need to know about poetry to read to a novel. So if you fall behind in math, it can be kind of hard to catch up. There's nothing necessarily "easy" about this, but math is very rewarding and fun if you're willing to put a little work in! Question What's the best way to prepare for a test? Daron Cam is an Academic Tutor and the Founder of Bay Area Tutors, Inc., a San Francisco Bay Area-based tutoring service that provides tutoring in mathematics, science, and overall academic confidence building. Daron has over eight years of teaching math in classrooms and over nine years of one-on-one tutoring experience. He teaches all levels of math including calculus, pre-algebra, algebra I, geometry, and SAT/ACT math prep. Daron holds a BA from the University of California, Berkeley and a math teaching credential from St. Mary's College. If you've taken diligent notes, the test prep should be fairly straightforward. Just review your notes and make sure you understand the key concepts. If you have any practice problems available to you, do those. The more practice you can get, the better. See more answers Ask a Question Advertisement Thanks Thanks The advice in this section is based on the lived experiences of wikiHow readers like you. 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He teaches all levels of math including calculus, pre-algebra, algebra I, geometry, and SAT/ACT math prep. Daron holds a BA from the University of California, Berkeley and a math teaching credential from St. Mary's College. This article has been viewed 295,886 times. Co-authors: 79 Updated: March 25, 2025 Views: 295,886 Categories: Mathematics Print Send fan mail to authors Thanks to all authors for creating a page that has been read 295,886 times. "This really helped me! I started to get B's and A's. I understand it because I follow all the steps. I almost got held back last year and got F's but this year I got a B in math! This really helped. Thank you!"..." more Share your story Share — copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt — remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. 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Download Article Download Article Math is an engaging, rewarding field to study, although it also presents plenty of challenges. If you're struggling with math—whether in or out of a classroom setting—there are plenty of concrete steps you can take to boost your math abilities. If you're a student, don't shy away from asking your instructor for help, and practice good classroom habits like taking notes and asking questions about topics that confuse you. Beyond that, try studying in a distraction-free environment, and review concepts that you're struggling to understand. Listen closely and take detailed notes during math class. If you have any questions, raise your hand or talk to your teacher after class. Before doing homework, review your class notes to solidify the information. Complete your homework on time so you'll be ready for the next class. Start studying for an upcoming exam 3-4 days in advance. Plan to study for about 60 minutes each day so you're fully prepared. 1 Attend every math class. It's tough to get better at math if you skip classes. You'll miss out on valuable instruction if you're absent, and your math skills remain stagnant. Math skills and concepts are cumulative, meaning that what you learn during week 5 of the semester will build on what you learned during week 4. But, if you skipped classes during week 4, you'll almost certainly struggle to pick up the concepts taught in future weeks. If you must miss a class (e.g., if you're sick), email your teacher and ask what information you missed. Politely ask them if you can make up in-class assignments you missed. 2 Listen closely during class. Focusing and paying attention to your teacher can help you get better faster. Write down any problems, equations, or figures that the instructor draws on the board. These will be valuable to refer back to if you get stumped while working on math homework outside of class. If you typically sit with a group of friends who whisper or text during class and distract you from what the teacher is saying, move away from them and sit alone near the front of the room. Advertisement 3 Take notes during class. As the teacher speaks, jot down detailed notes in your best handwriting. It's very likely that what the teacher is saying is important and is something you should remember that will help you study for tests. Writing down what your instructor is saying will help you understand the ideas, and the notes you take will also be a valuable resource when you're studying for a test or quiz.[1] You can take notes either on paper or in a word-processing document on your computer. However, if you have a tendency to get distracted on the internet while you're taking notes with a computer, stick to taking notes on paper. 4 Ask your math teacher for help if you're struggling. If you're confused about something, talk to your teacher. Raise your hand during class and ask a question, or visit your teacher after class with a specific problem. In reality, you're probably not the only one confused, and other students will appreciate your question too.[2] For example, you could say something like, "I'm really struggling with understanding imaginary numbers, and I've read the textbook chapter a few times. Could you explain them to me again?" 5 Study in a group of peers. Study groups are a great way to prepare for a test and improve your math abilities. They let you and your peers ask each other questions about topics that confuse you and review material that's going to appear on an upcoming test or exam. Try studying with flash cards, or working difficult problems together.[3] Keep focused during group study time! If it turns into a social hour, your math skills won't get any stronger. If people start joking around or lose focus, say something like, "Hey guys, I'm glad we're having a good time, but let's keep focused on the math we came here to study." Advertisement 1 Brush up on basic math concepts. Math can be a difficult subject, especially if you don't understand some of the core concepts. More advanced mathematical ideas build on more basic ones, so it is not a bad idea to review concepts and ideas that are a little fuzzy, until they become perfectly clear. For example, brush up on Addition, subtraction, multiplication, and division.[4] These are crucial parts of math, and having a firm grasp on them will help you out in more advanced fields of math, including algebra and trigonometry. 2 Read through the notes you took during class. Take 10 to 15 minutes to re-read the notes you took during the previous math lecture. Your detailed notes won't do you much good if you never refer back to them! When you sit down to do your homework or solve a few math problems, look over what you jotted down. This will keep the steps you'll use to solve an equation or calculate a variable fresh in your mind and prevent any potential misunderstandings.[5] If you're confused by your notes or can't read your own handwriting, try re-reading the chapter of your math textbook that you're currently working through. Doing this will help you to understand the mathematical topics you're currently working on. 3 Complete every problem on your assignments. Instead of viewing homework as an obligation, look at it as a way to improve your skills. To that end, make sure that you do 100% of the problems on each assignment you're given. If you're not quite sure how to do an assigned problem or feel like it's over your head, speak to your teacher after class and ask for their help.[6] If you'd rather not ask the teacher, you could also ask one of your peers or friends how to solve a tricky problem. 4 Work additional problems on your own. Once you've finished your homework, try doing a few more questions. After completing 3 to 5 extra problems, check your answers against those given in the back of the book. If one of your answers is incorrect, check your work and find where you slipped up. Working extra problems is a great way to improve your math skills![7] Let's say you're studying geometry and are having a hard time rotating and reflecting shapes around axes. Work a few problems that deal with this issue. Start with easy problems and work your way to more difficult ones to help yourself master the issue. EXPERT TIP Joseph Meyer Math Teacher Joseph Meyer is a High School Math Teacher based in Pittsburgh, Pennsylvania. He is an educator at City Charter High School, where he has been teaching for over 7 years. Joseph is also the founder of Sandbox Math, an online learning community dedicated to helping students succeed in Algebra. His site is set apart by its focus on fostering genuine comprehension through step-by-step understanding (instead of just getting the correct final answer), enabling learners to identify and overcome misunderstandings and confidently take on any test they face. He received his MA in Physics from Case Western Reserve University and his BA in Physics from Baldwin Wallace University. Hone your mental math skills. Improve your math muscle memory by solving problems without using calculators, paper, or counting aids. Use your mind, memory, lessons, and discussions with your classmates to refine your math skills and improve your problem-solving abilities. 5 Study for tests in advance. Start preparing for exams 3 to 4 days ahead of time. When your teacher says a test is coming up, avoid cramming the night before. Plan to study for about 60 minutes each day to brush up for the test. Re-read the book chapters you'll be tested on and look over your relevant in-class notes to see what mistakes to avoid. If you have time, you could even test yourself with flash cards or form an impromptu study group with your friends.[8] If you find that you've forgotten some of the math lessons or are still struggling with a tricky concept, ask for help! The teacher will appreciate your earnestness and won't mind answering your questions. Advertisement 1 Break down tough problems into smaller parts. Master difficult math concepts by making them seem manageable. Even the most complex math equations are made up of many small, not particularly difficult component steps. Once you figure out what those steps are and how to solve them individually, you'll be well on your way to correctly solving the larger problem.[9] For example, say you're working on a complicated algebra problem that involves dividing 1 variable-filled equation by another. First solve each of the equations above and below the division line, and only then move on to tackling the division. 2 Figure out why you missed the problems that you solved incorrectly. A great way to improve at math is to learn from your own mistakes. This way, you can improve in the specific areas that you're weakest in. After each quiz or test is returned to you, take a look at the problems you missed and review your steps to find out where you went wrong. Then, the next time you come across this kind of problem, you can solve it correctly! For example, maybe you followed the order of operations incorrectly and forgot to solve equations within parentheses first. Do this with your homework, too! Review each assignment after it's passed back to you and figure out where you went wrong on the problems that you missed. 3 Explain tricky concepts to your peers. Teaching a concept to others is a great way to improve your own understanding. You'll be forced to put your math knowledge into words and figure out ways to break large, complicated ideas into smaller, bite-sized bits of knowledge. If you get stuck trying to explain something, refer back to the textbook or ask your teacher for help.[10] Say that a friend from your math class is struggling to understand how to use the quadratic equation. Explain it to them as best you can, and solve a couple of problems with them to make sure you both get it. 4 Apply math concepts to real-world issues. Turn your math problems into something relatable. Math can sometimes feel a little abstract and seem like it doesn't tie into the real world. This doesn't need to be the case, though. Help yourself get better at math by finding ways to tie what you're learning in with your real life. For example, the Pythagorean Theorem has to do with the ways that shapes of different sizes relate to one another.[11] As another example, think of negative numbers. While they may seem irrelevant when you're first learning about them, negative numbers are useful in thinking through ideas like financial debt, which is a concept you should understand. The mathematical constant "e" also has real-life tie-ins and it can help you understand mathematical growing processes. Ask your teacher to help you come up with some additional ways that you can apply math to real-world issues. Advertisement 1 Stay calm and focused during tests. Feeling anxious during a test could lower your overall score. So, take a deep breath before you go into the classroom to stay calm. If you feel yourself tensing up during the test, stand up, stretch your legs, and take a 2–3 minute break to calm down. Also make sure you get a good night's sleep and eat a full, healthy meal before going in for a math test. 2 Remove all distractions. Make your studying environment as distraction-free as possible. Put the cell phone aside and turn off the TV. Don't have anything other than your textbook and a calculator on your desk, as you might be tempted to play with the object and lose concentration. If studying with friends distracts you from your work, plan to do your math work alone.[12] If it helps, you could set a timer (say, for 1 hour) and aim to concentrate on the work before you in the time you've set aside for it. There will plenty of time for the other things later. 3 Work with a tutor. If you're still struggling with math, it might be worth asking a tutor for help. One-on-one learning is often beneficial, since the tutor can answer all of your questions and tailor their teaching style to your learning style. The tutor can also explain concepts in ways that make sense to you, and can give you helpful advice to make learning math easier.[13] A lot of colleges and private high schools offer free math tutoring on the campus. Talk with the admin assistant in the math department or with your teacher or to get connected with a tutor. Advertisement Add New Question Question Can you become good at math later in life? Daron Cam is an Academic Tutor and the Founder of Bay Area Tutors, Inc., a San Francisco Bay Area-based tutoring service that provides tutoring in mathematics, science, and overall academic confidence building. Daron has over eight years of teaching math in classrooms and over nine years of one-on-one tutoring experience. He teaches all levels of math including calculus, pre-algebra, algebra I, geometry, and SAT/ACT math prep. Daron holds a BA from the University of California, Berkeley and a math teaching credential from St. Mary's College. Absolutely! It can take a little bit of time to get really good at math, so don't worry if you're already done with your early schooling. You can always catch up if you're willing to put in some hard work. Question How can I learn math easily? Daron Cam is an Academic Tutor and the Founder of Bay Area Tutors, Inc., a San Francisco Bay Area-based tutoring service that provides tutoring in mathematics, science, and overall academic confidence building. Daron has over eight years of teaching math in classrooms and over nine years of one-on-one tutoring experience. He teaches all levels of math including calculus, pre-algebra, algebra I, geometry, and SAT/ACT math prep. Daron holds a BA from the University of California, Berkeley and a math teaching credential from St. Mary's College. Math is one of those classes where each new concept builds on a previous concept. It's not like English class where you don't necessarily need to know about poetry to read to a novel. So if you fall behind in math, it can be kind of hard to catch up. There's nothing necessarily "easy" about this, but math is very rewarding and fun if you're willing to put a little work in! Question What's the best way to prepare for a test? Daron Cam is an Academic Tutor and the Founder of Bay Area Tutors, Inc., a San Francisco Bay Area-based tutoring service that provides tutoring in mathematics, science, and overall academic confidence building. Daron has over eight years of teaching math in classrooms and over nine years of one-on-one tutoring experience. He teaches all levels of math including calculus, pre-algebra, algebra I, geometry, and SAT/ACT math prep. Daron holds a BA from the University of California, Berkeley and a math teaching credential from St. Mary