There's always that one person in math class that constantly gets straight-As, knows the answers to every question, and is overall a <u>complete math whiz.</u> You know them, I know them; hell, I wanted to be them.

It's been a while since then, and I'm glad to say I've picked up a couple of things along the way. Here's my full guide on **how to build a genuine intuition for math.** 

Appreciate the support, btw.

I'll make a couple of guesses before we start: You're between the ages 16-24, you're not exactly terrible at math, but would definitely like to improve your math skills.

If so, then this guide's for you:

## 1. Develop an interest in math.

I realize this is already a lot to ask, but I'm of the staunch belief that if students aren't responding well to material, it's the teacher's fault. I've seen first-hand what a great teacher can do (and conversely, what a shitty teacher can do) to a batch of students, and the difference is night and day.

It's easy to lose sight of this, but lessons and textbooks alike are <u>meant to be</u> <u>understandable</u>. Society improves as a result of more people understanding how the world works, so it's in our best interests that students learn. It's sad that some students convince themselves that learning is meant to be confusing for confusing's sake. Not the case.

However, as a student, you still need to take responsibility for your own learning. I'd recommend the following resources to get you excited about math:

- Eddie Woo this guy's enthusiasm for math is infectious
- 3Blue1Brown his explanations are admirably clear- totally recommend
- <u>Pranav Patnaik</u> might be the greatest teacher ever? not sure though

lmk if you want my honest full list of recommendations, I'll think about it some more and get back to you.

On a more serious note, developing a keen interest in math is important for success. Maybe you're not interested in math, but what it can do for you. That's fine as well.

## 2. Study.

Groundbreaking, right? There's no secret formula: the more hours you study, the more likely these concepts will lodge themselves into your brain. Ever find that during a test, instead of recalling what you studied, you find yourself either blanking, or going over that earworm tune you can't stop listening to?

The sole reason behind this is the time you've spent immersing yourself in the material. Notice how you'll never have trouble remembering a song you've heard a hundred times or the lines in your favorite movie? That's because these things are reinforced through repetition. Math needs to be practiced in the same manner: consistently and with intent.

Lesson is: The longer you do something, the more proficient you become at it. Western society's conditioned us to think the opposite, in favor of "efficiency." But what happens as a result is a generation that puts in <u>low-effort for minimal reward.</u> Not great.

## 3. Solve problem sets.

You need to study with some intent. Simply reading through examples or watching videos isn't enough. You have to <u>actively engage with the material.</u>

Start with problems that challenge you but are within your current skill level. As you grow more comfortable, gradually increase the difficulty.

If you can, try applying concepts in diverse scenarios. For instance, if you're learning about algebra, try applying those skills to <u>real-world situations</u> or different types of problems! This not only reinforces your learning but also helps you see the broader applications of what you're studying.

## 4. Understand the "why" behind solutions.

Understand why a solution works, not just how it works. When you grasp the underlying principles, you can apply them more flexibly and solve unfamiliar problems more effectively.

Ask yourself questions like:

- Why does this formula work?
- How does this theorem relate to what I've learned before?
- What happens if I change one of the parameters?

Engaging with these questions encourages a deeper understanding of the material and helps you build a solid mathematical foundation.

Always remember, building intuition in math is a gradual process. With consistent practice, a genuine interest in the subject, and a commitment to understanding the deeper principles, you'll develop the skills and confidence to excel.

Thanks for following along, and best of luck on your mathematical journey!

If you have any questions or need further recommendations, feel free to reach out via @pranavpatnaik $_{-}$  on Instagram.