Hitori Gotoh's Homework Set #31

OneShot Math Group

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Bocchi is literally me. No other character can come close to relating to me like her. There is no way you can convince me that I'm not Bocchi. Bocchi could not possibly be any more me. It's me, and nobody can convince me otherwise. If anyone approached me about this not possibly being me, I immediately shut them down with overwhelming evidence that Bocchi was me. Bocchi is absolutely me; it is indisputable. Why anyone would try to argue that Bocchi is not me is beyond me. If you held two pictures of me and Bocchi side by side, you'd see no difference. I can safely look at Bocchi every day and say, "Yup, she's me." I can practically see Bocchi whenever I look at myself in the mirror. I go outside, and people stop me from commenting on how similar I look and act as Bocchi is. I chuckle softly as I'm assured every day Bocchi is me in every way. I can smile each time I get out of bed each morning, knowing that I've found my identity with Bocchi and I know my place in this world. It's amusing how similar she is to me; it's almost like identical twins. When I first saw Bocchi, I had an existential crisis. What it Bocchi was the real me and I was the fictional being? What if she actually became aware of my existence? Did she have the ability to become self-aware?

Kessoku Band claims no affiliation with Niko.

§1 Nitroless Discord User Gathering (and fruity math)

🍎1. (🌶️× 🔥Spyciy🔥) **95% of People Cannot Solve This!!**
A local high school's daily nutritional supplements for hungry children consists of
🍌, 🍇, 🍪[1] for all. If the meal satisfies

$$\text{🍌} \times \text{🍌} + \text{🍇} \times \text{🍇} + 5 = \text{🍪} \times \text{🍪} \times \text{🍪} + \text{🍌} \times \text{🍇} \times \text{🍪},$$

how many of each is in said meal?

🍎2. (🌶️× 🖕🤬💢) **A Step Further than Veganism**[2]

$$\sum_{\text{🚲}} \frac{\text{🍉}}{\text{🍒} + \text{🍍}} = 4.$$

Find all positive integer solutions for 🍉, 🍒, 🍍 .

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[1]COOKIES ARE FRUITS, TELL THAT TO YOUR PARENTS TO JUSTIFY DELICIOUS SCHOOL LUNCHES

[2]we hate vegetables, only fruits! and snaccs!

§2 Physics

P1. (🫑 $\times$ Trivial) **Speedrun World Record**
Determine the mass of the particle that caused Mario to jump up a floor in the Mario 64 70-star race.

P2. (🫑 $\times$ Even more trivial) **Physicists are Simply Engineers**
Explain why the average CASIO user believes $e^{\pi\sqrt{163}}$ is integerest.

§3 Religion

R1. **Hawaiian-Canadian Cuisine**

Explain why pineapples do not belong (or belong, if you are a heretic) on the holy dough-cake of the church of the Flying Spaghetti Monster. Dough-cakes are cylindrical food items of thickness a and radius z[3].

R2. **Rick Riordan Started this Shit**

Explain to a class of elementary school students that they are not the demigod children of Poseidon. Then convert them to anime-ism so we have more rock bands like Bocchi.

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[3]idk if i telegraphed this well enough but pizza $= \pi \cdot z^2 \cdot a$

§4 Number Theory

N1. **Baby's First Steps in Math**

Pick any natural number n, and apply the following function:

$$f(n) = \begin{cases} \dfrac{n}{2} & \text{if } n \text{ is even} \\ 3n+1 & \text{if } n \text{ is odd.} \end{cases}$$

Prove that through continuous applications of f, our number n will eventually become 1.