

Language Approach to Math

\mathbb{N} naturals/counting numbers $0^*, 1, 2, 3, \dots, \infty$
created so we can order, identity, and quantity
discuss quantities and order
"I'll take 5" "I want the third"

\mathbb{Z} integers $-\infty, \dots, -3, -2, -1, 0, 1, 2, 3, \dots, \infty$
created so we can discuss differences, debts
discuss change of quantity
"5 more, no wait 5 less" "You owe me 4 dollars"

\mathbb{Q} rationals
created so we can discuss sub divisions
discuss portions sub quantities
"2 and a half please" "You owe 3.25"

Irrationals π, e , (I'ma the real "natural numbers")
A set to place numbers that exist outside
of the current ~~math~~ language, $P(\mathbb{N}, \mathbb{Z}, \mathbb{Q})$, can't produce π
these numbers exist regardless of our understanding,
naming, or notation. (Also I prefer π written as Θ)

\mathbb{R} Reals $\mathbb{N}, \mathbb{Z}, \mathbb{Q}$, Irrationals, trans finites... etc
Created so as to catch all, $P(\mathbb{N}, \mathbb{Z}, \mathbb{Q})$, so far.
I propose that we use the reals for a unique
purpose also, $0 \leq \mathbb{R} \leq 1$, continuous language.

Cantor sets between 0-1 have been
shown to be uncountably infinite. we can
map everything between zero and one.

We can use language from all three schools when
discussing something. Discrete and continuous can
coexist.