$$\mathbb{S}^{\wedge}_{\mathrm{MU}}$$

Imagine maps:

$$\mathrm{Map}^{G}_{*}(A,B)$$
$$\mathrm{Map}^{G}_{*}(A,B)$$

where $A, B \in \mathsf{Top}^G_*$ (where Top is a suitable category).

If $X \in \mathsf{Top}_*$ and $Y \in \mathsf{Top}$, we can form the spectra:

$$\Sigma^\infty X, \Sigma^\infty_+ Y$$

and for a spectrum $Z \in \mathsf{Sp}$, we can form the pointed space:

$$\Omega^\infty Z$$

Theorem 1 (Pythagoras)**.** $a^2 + b^2 = c^2$.

Proof. Trivial □

◁

Lemma 2 (Zorn's Lemma)**.** *An poset $P \in \mathsf{Poset}$ where all chains are bounded above has a maximal element.*

Proof. Axiom of choice. □

◁

Proposition 3. *$\sqrt[3]{2}$ is not a rational number.*

Proof. Suppose it was. Then, there will be two integers $a, b \in \mathbb{Z}$ such that $a^3 + a^3 = b^3$. We will need the following:

Theorem 4 (Fermat's Last Theorem, due to Andrew Wiles)**.** *The equation $a^n + b^n = c^n$ has no integer solutions when $n \geq 3$.*

Proof. Trivial [Theorem 4] □

◁

We see that $\sqrt[3]{2}$ being rational produces a contradiction to Fermat's Last Theorem. Therefore, it must be irrational. [Proposition 3] □

◁

Remark 5 (Jordan curve theorem)**.** It happens

idea. Duh □

◁

$$\mathbb{S}, \mathrm{MU}, \mathrm{tmf}, \mathrm{BP}, T(n), K(n), \mathrm{H}\mathbb{Z}, \mathrm{E}_n$$
$$S, MU, tmf, BP, T(n), K(n), H\mathbb{Z}, E_n$$

Claim 6. *When $z \in \mathbb{C}$, we have that:*

$$e^z = e^{\mathcal{Re}(z)}(\cos \mathcal{Im}(z) + i \sin \mathcal{Im}(z))$$

◁

$$\mathrm{K}(\mathbb{Z}) \quad K \quad K\Big(n - \mathrm{cork}_p(\mathcal{F})\Big) \quad K(n) \quad \mathrm{K}(\mathbb{Z}) \quad \mathrm{K}(\infty)$$

$$\mathbb{\Delta}$$

Axiom (Axiom of Choice)**.** For any collection of non-empty sets $\mathcal{S}$, there exists a choice function $\phi : \mathcal{S} \to \bigcup_{s \in \mathcal{S}} s$, such that $\phi(s) \in s$. ◁

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

$$abcdefghijklmnopqrstuvwxyz$$
$$ABCDEFGHIJKLMNOPQRSTUVWXYZ$$
$$\alpha\beta\gamma\delta\epsilon\zeta\eta\theta\iota\kappa\lambda\mu\nu\xi o\pi\rho\sigma\tau\upsilon\phi\chi\psi\omega$$
$$\mathrm{A}\mathrm{B}\Gamma\Delta\mathrm{E}\mathrm{Z}\mathrm{H}\Theta\mathrm{I}\mathrm{K}\Lambda\mathrm{M}\mathrm{N}\Xi\mathrm{O}\Pi\mathrm{P}\Sigma\mathrm{T}\Upsilon\Phi\mathrm{X}\Psi\Omega$$
$$\varepsilon\vartheta\varrho\varphi$$

$$\sum\prod\coprod\bigcup\bigsqcup\bigoplus\bigotimes$$