

Russell's Paradox

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Background



Background



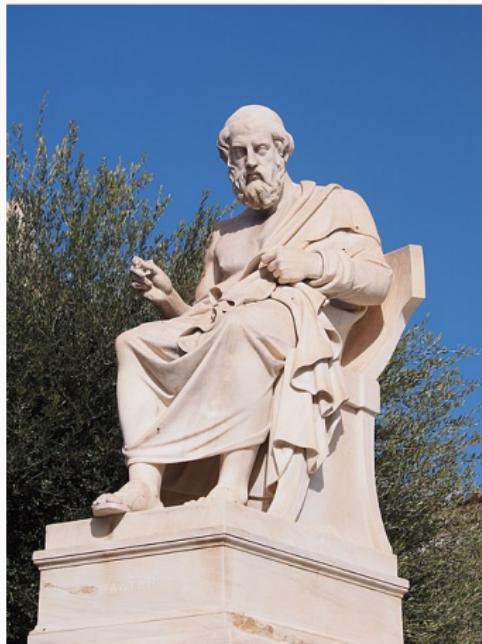
$\{S|S \notin S\}$

Background



Source: A guy I met at a party once

Historical underpinnings



Historical underpinnings



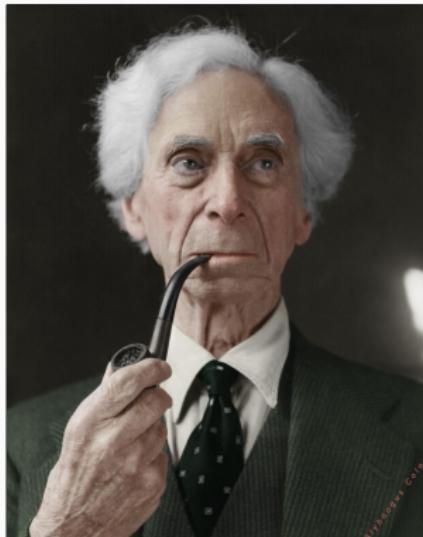
Historical underpinnings



Historical underpinnings



Historical underpinnings



The project

0, 1, 2, 3, 4, ...

$$x + y = z$$

$$x - y = z$$

...

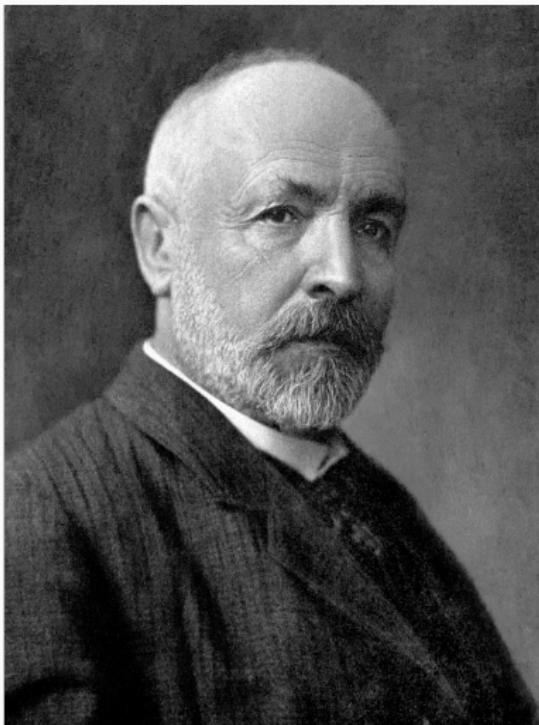
The project

0, 1, 2, 3, 4, ... \Rightarrow 🤔

$x + y = z$
 $x - y = z$ \Rightarrow ✓
...



Set theory



Set theory

{, , , }

{, , , , , }

{monday, tuesday, wednesday, thursday,
friday, saturday, sunday}

{, }



Set theory

$\{1, 3, 5\}$

$\{1, 10, 100\}$

$\{\}$



Set theory

$$\{0, 1, 2, \dots, 9999, 10000\}$$



Set theory

$$\{0, 1, 2, \dots, 9999, 10000\}$$

$$\{x \mid x \leq 10000\}$$



Set theory

$$\{0, 1, 2, \dots, 9999, 10000\}$$

$$\{x \mid x \leq 10000\}$$

$$\{1, 3, 5, \dots\}$$

$$\{x \mid x \% 2 = 1\}$$

