

gram



set Visualization

Venn Dia ~~Instagram~~



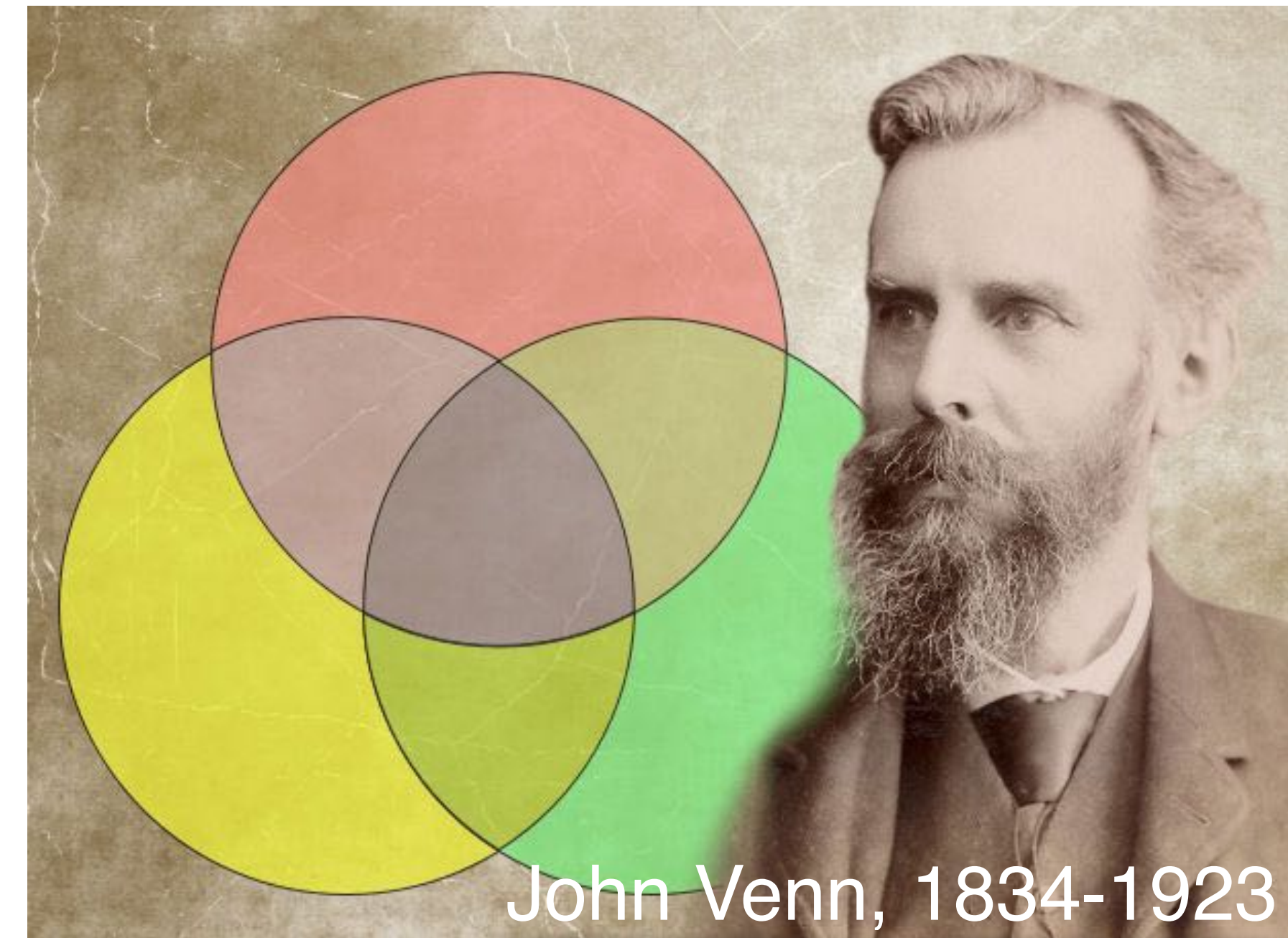
Visualize

Sets

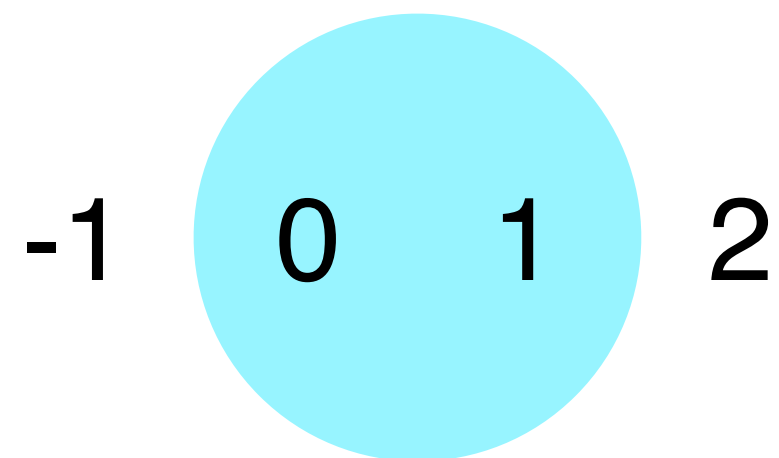
Regions

Elements

Points



John Venn, 1834-1923



$\{0, 1\}$

Elements
in set

Elements
not in set

Elements
in set

Elements
not in set

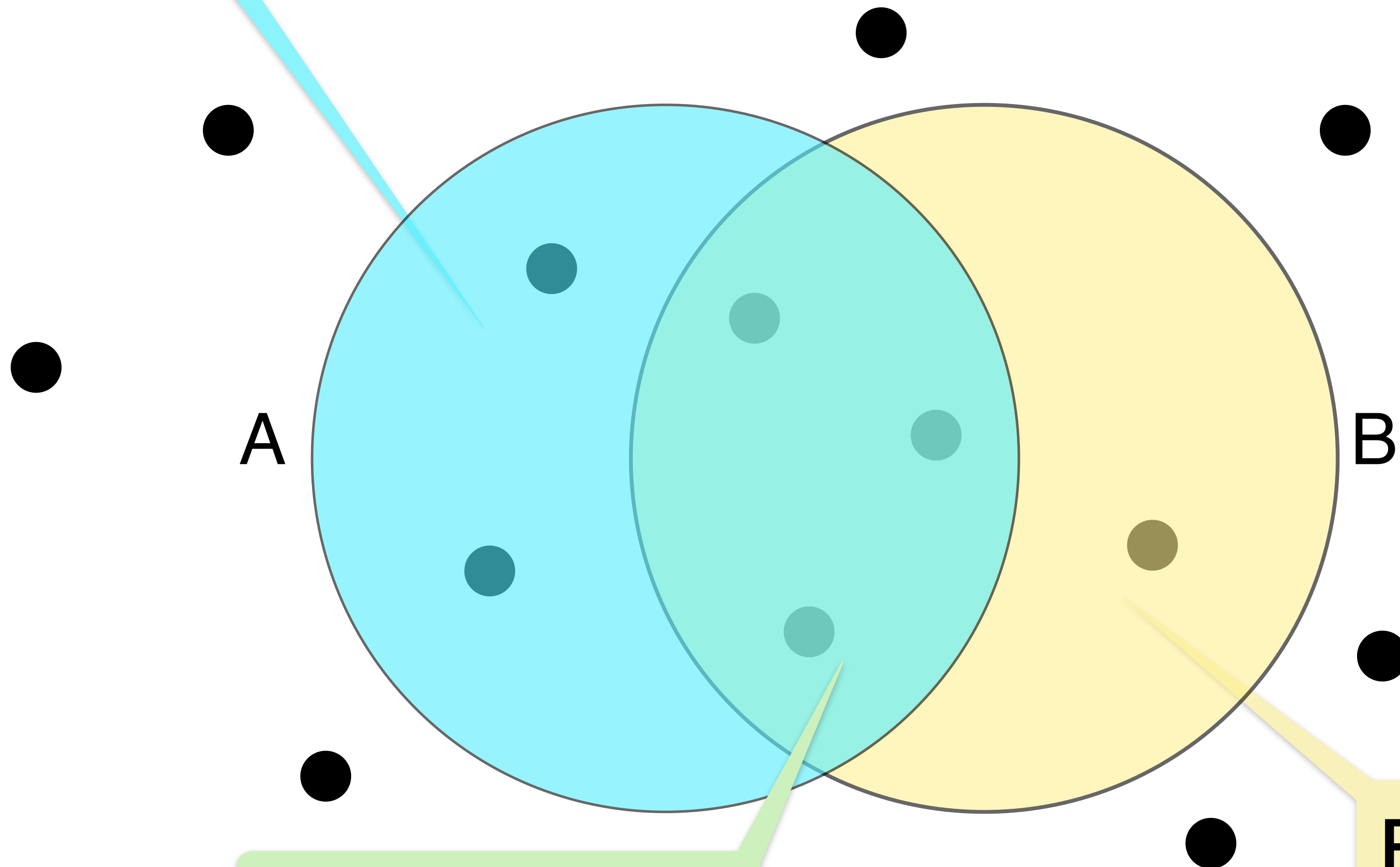
Two Sets

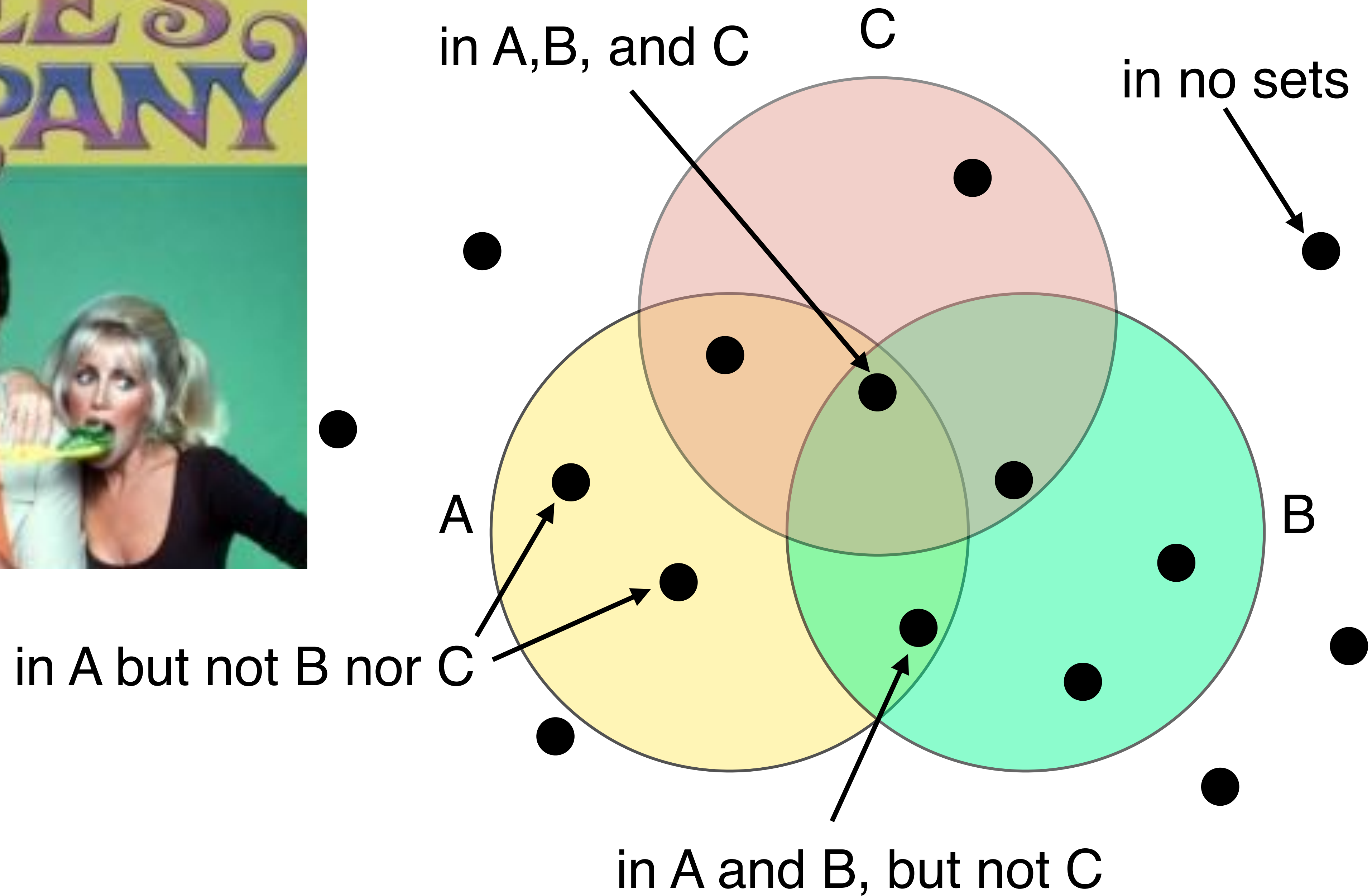
Points in A

Points in
neither A nor B

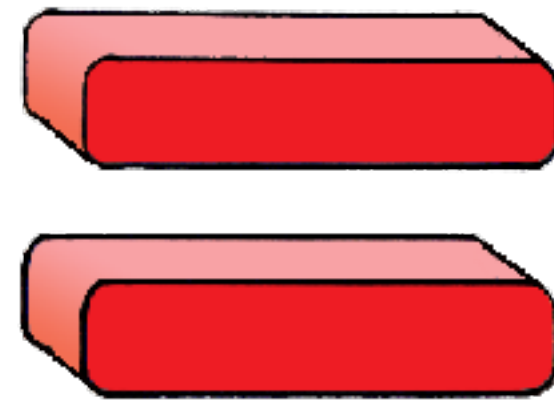
Points in $A \cap B$

Points in B

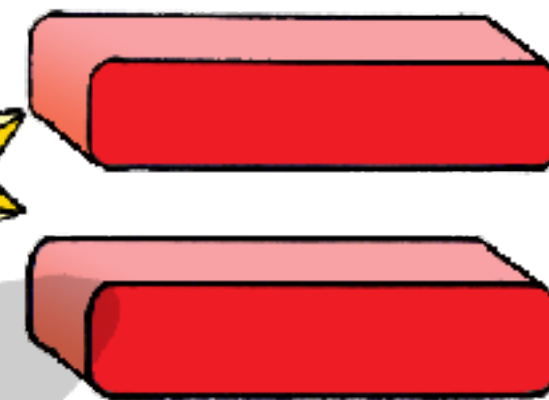
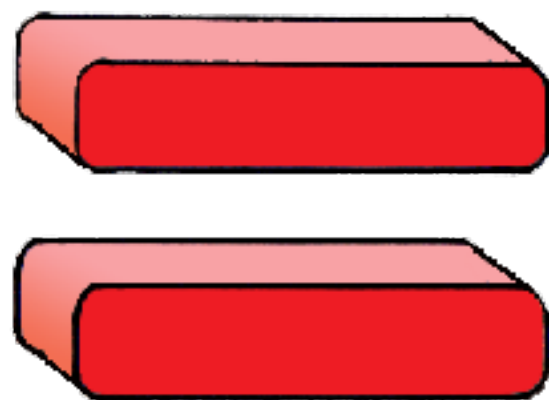
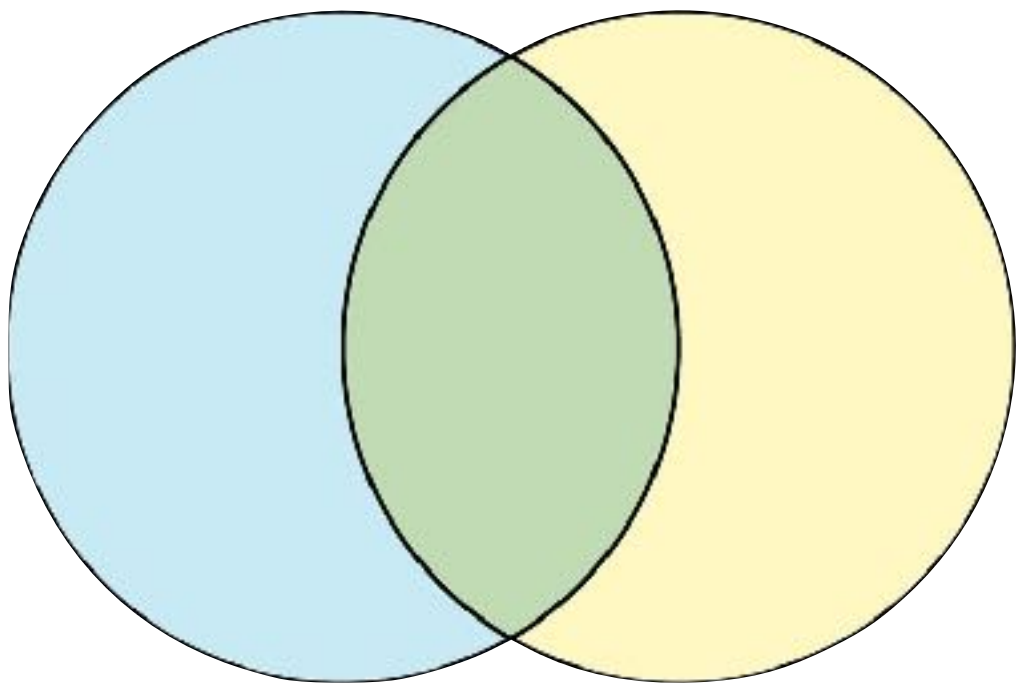




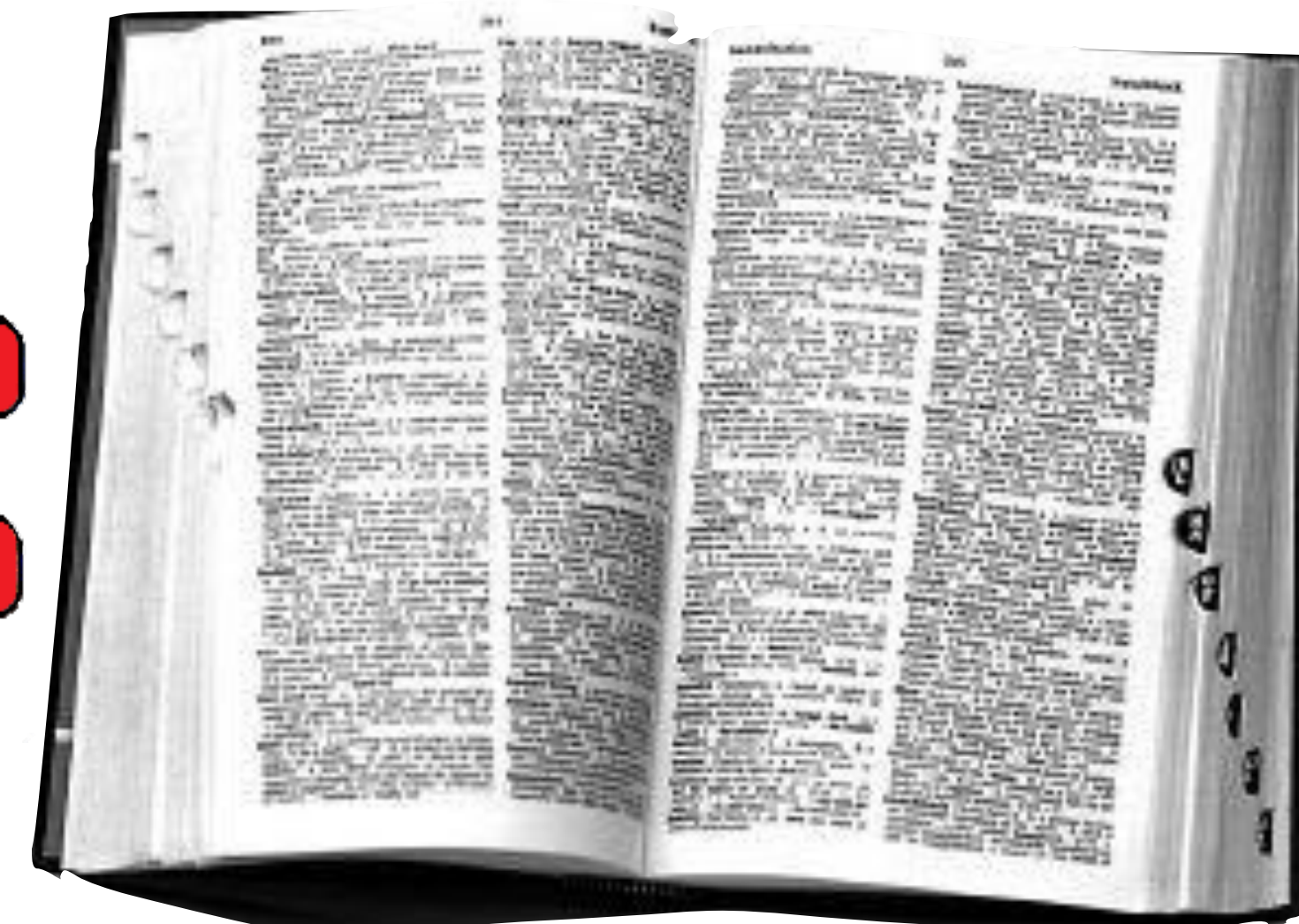
Why Venn



10³



Visualize definitions & proofs



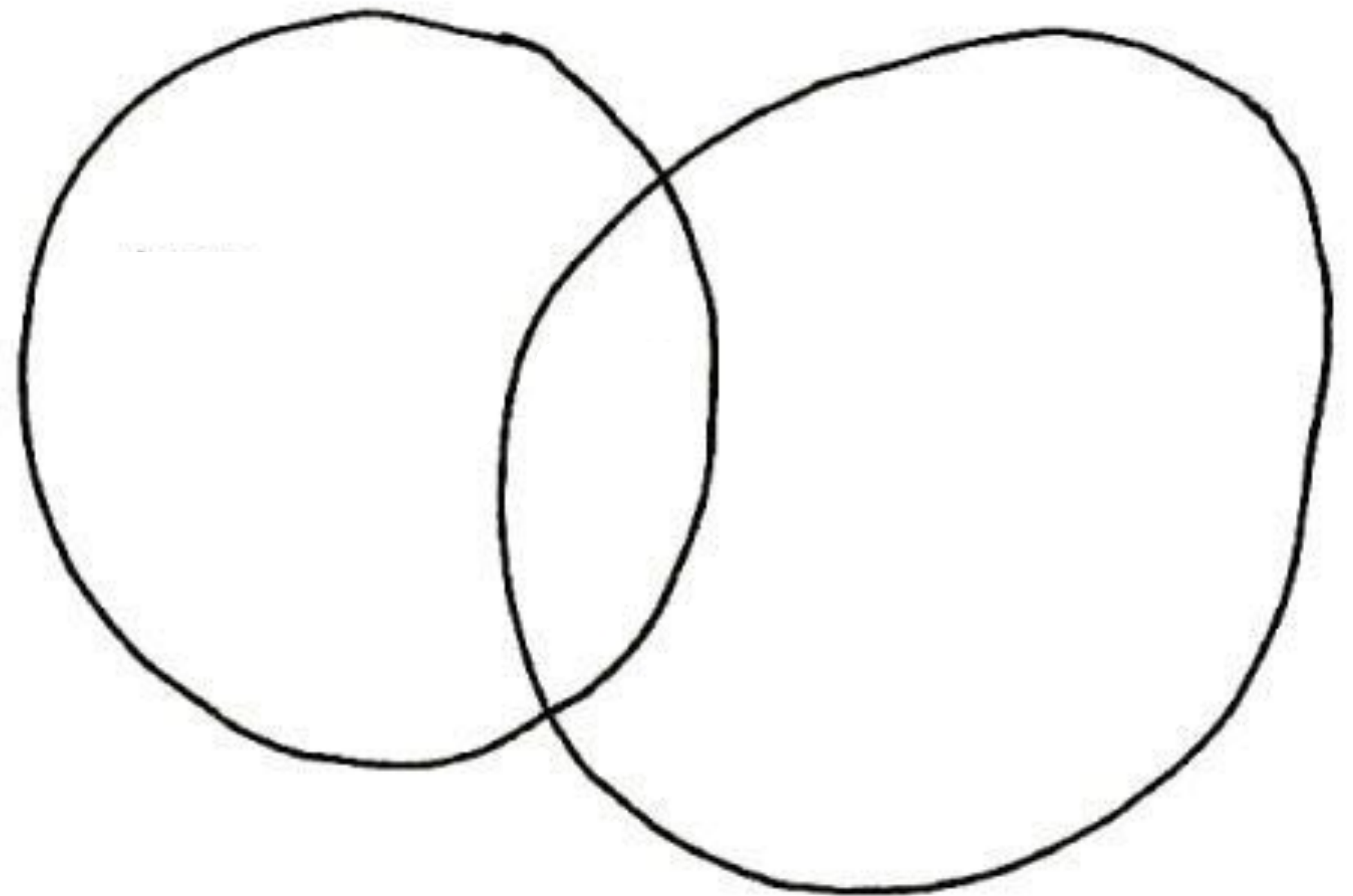


Gods of Science

Got something right

Attached his name to it

1881 John Venn's original diagram

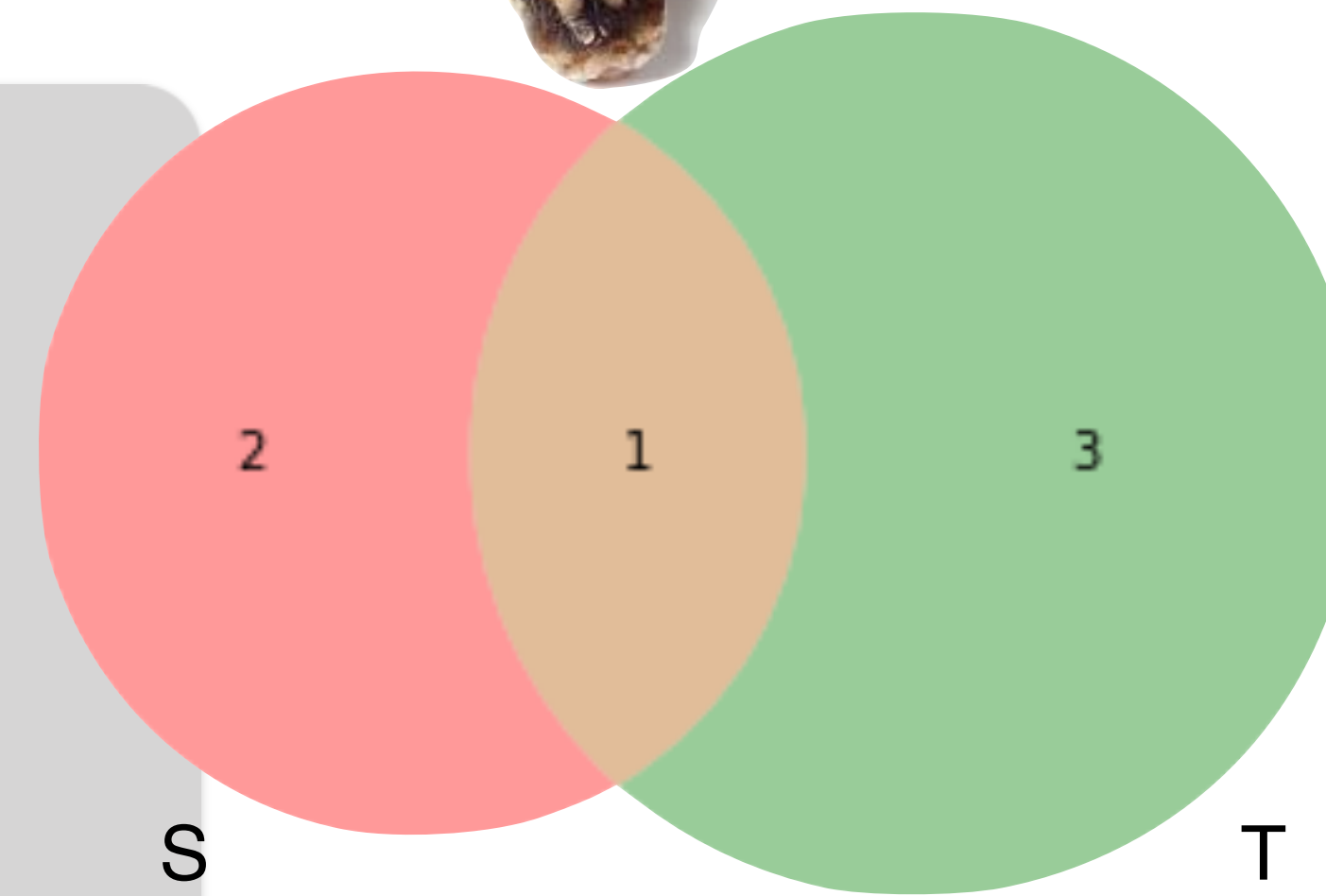


Venn Diagrams

Download matplotlib_venn package (link: notebook)

```
import matplotlib.pyplot as plt
import matplotlib_venn as venn
S = {1, 2, 3}
T = {0, 2, -1, 5}
venn.venn2([S, T], set_labels=('S', 'T'))
plt.show()
```

```
venn.venn3([S, T, U], set_labels=('S', 'T', 'U'))
```



Venn Diagrams
Visualize
Reason
Prove
Understand

Sets

set Visualization

gram



Set Relations