Venn Diagrams

Sets

Elements

Regions

Points

-1 0 1 2

\{0, 1\}

Elements in set

Elements not in set

Elements in set

Elements not in set

John Venn, 1834-1923
Two Sets

Points in A

Points in B

Points in $A \cap B$

Points in neither $A$ nor $B$
in A, B, and C

in no sets

in A but not B nor C

in A and B, but not C
Why Venn

Visualize definitions & proofs
Gods of Science

Got something right

Attached his name to it

1881 John Venn’s original diagram
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

gram

set Visualization

Sets
Set Relations