

Ω

A



\bar{A}

Ω

A

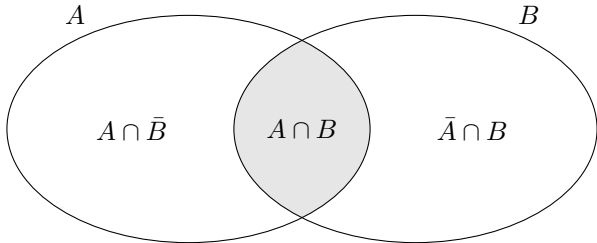
B

$A \cap B$



A Venn diagram illustrating the relationship between two sets, A and B , within a universal set Ω . The universal set Ω is represented by the entire area of the diagram. Two overlapping ellipses represent sets A and B . The intersection of A and B , denoted as $A \cap B$, is shaded in light gray. The labels A and B are placed above their respective ellipses, and the label $A \cap B$ is placed within the shaded intersection area.

Ω



Ω

A

B

$A \cup B$

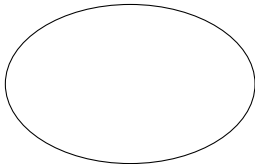
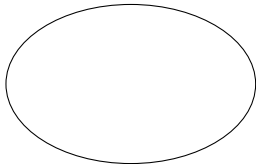


A Venn diagram illustrating the union of two sets, A and B , within a universal set Ω . The universal set Ω is represented by the entire white area. Two overlapping, light-gray shaded regions represent the sets A and B . The label A is positioned above the left lobe of the shaded region, and the label B is positioned above the right lobe. The label $A \cup B$ is centered within the combined shaded area, representing the union of the two sets.

Ω

A

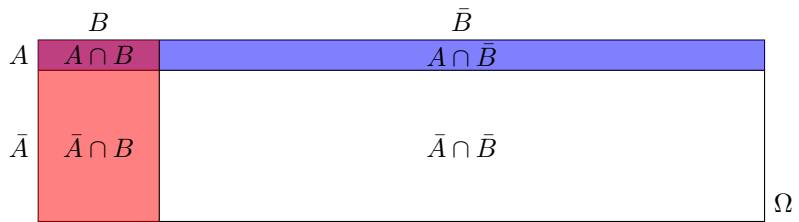
B



A

\bar{A}

Ω



A_1	Ω
A_2	
\vdots	
A_i	
\vdots	
A_n	

	B_1	B_2	...	B_j	...	B_m	
A_1	$A_1 \cap B_1$	$A_1 \cap B_2$		$A_1 \cap B_j$		$A_1 \cap B_m$	
A_2	$A_2 \cap B_1$	$A_2 \cap B_2$		$A_2 \cap B_j$		$A_2 \cap B_m$	
\vdots							
A_i	$A_i \cap B_1$	$A_i \cap B_2$		$A_i \cap B_j$		$A_i \cap B_m$	
\vdots							
A_n	$A_n \cap B_1$	$A_n \cap B_2$		$A_n \cap B_j$		$A_n \cap B_m$	Ω