

Ω

A



\bar{A}

Ω

A

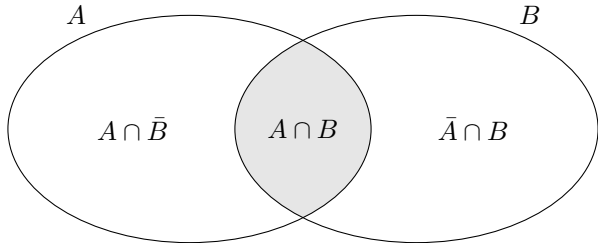
B

$A \cap B$



A Venn diagram illustrating the intersection of two sets, A and B . The universal set is denoted by Ω . Set A is represented by the left ellipse, and set B is represented by the right ellipse. The intersection of A and B , labeled $A \cap B$, is shaded in light gray.

Ω



Ω

A

B

$A \cup B$

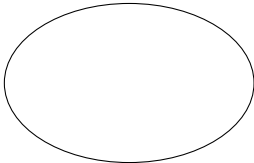
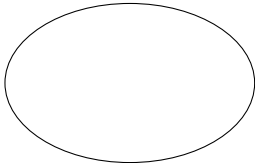


A Venn diagram illustrating the union of two overlapping sets, A and B , within a universal set Ω . The universal set Ω is represented by the entire white area. The two overlapping regions, A and B , are shaded light gray. The label A is positioned above the left lobe, B is positioned above the right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

Ω

A

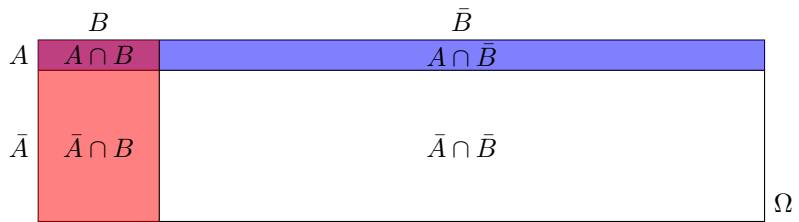
B



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