

A

B

$A \cap B$



A Venn diagram illustrating the intersection of two sets, A and B. Set A is represented by a red ellipse on the left, and Set B is represented by a green ellipse on the right. The intersection of A and B, denoted as $A \cap B$, is the shaded region where the two ellipses overlap. This intersection is filled with a light blue color and contains a dense pattern of red and green diagonal lines. The label $A \cap B$ is centered within this shaded region.