

A Venn diagram illustrating the relationship between sets  $A_1$ ,  $A_2$ , and  $E$ . A large light gray oval represents the set  $E$ . A black curve, representing a partition, divides the interior of  $E$  into two regions. The left region is labeled  $E \cap A_1$  and the right region is labeled  $E \cap A_2$ . The label  $A_1$  is placed to the left of the oval, and  $A_2$  is placed to the right. The label  $E$  is placed at the top right of the oval. The entire diagram is enclosed in a black rectangular frame.

$A_1$

$E \cap A_1$

$E \cap A_2$

$E$

$A_2$