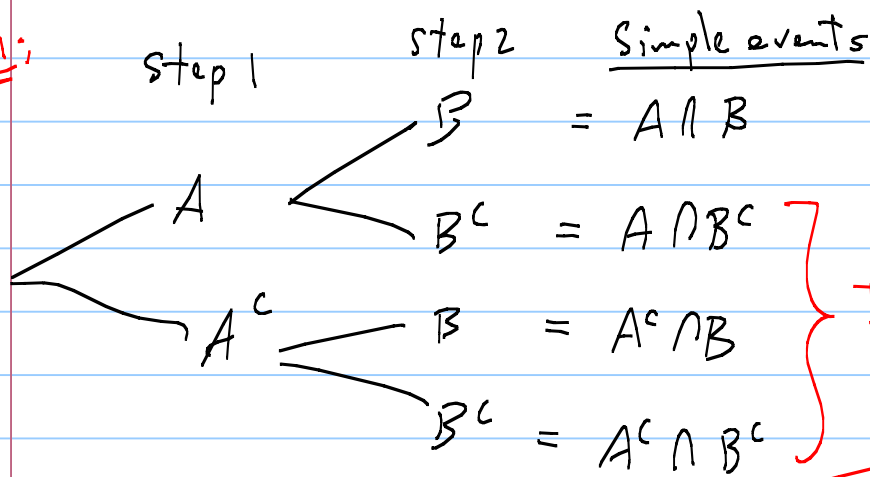


Prove the other De Morgan's law, i.e.,
 $(A \cap B)^c = A^c \cup B^c$

using tree and/or Venn diagrams.

Note: The law applies to any A and B ,
mut. excl. or not. But consider the case
where A and B are not mut. excl.

Soln:



The union of these
is $A^c \cup B^c$.

Then the complement
of this event, i.e.

$$(A^c \cup B^c)^c$$

should be $A \cap B$

ie. $(A^c \cup B^c)^c = A \cap B$

or $(A \cap B)^c = A^c \cup B^c$

