

If $P(A)$ is not 0 or 1 then A and its complement, A^c , must be dependent.

$$P(A \cap A^c) = P(\emptyset) = 0$$

$$P(A)P(A^c) \neq 0 = P(A \cap A^c)$$

0

0

since
 $P(A) \neq 1$

So A, A^c are dependent.