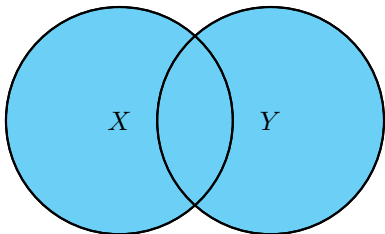


$S$ 

$P(X \cup Y)$  is the same as  $X||Y$