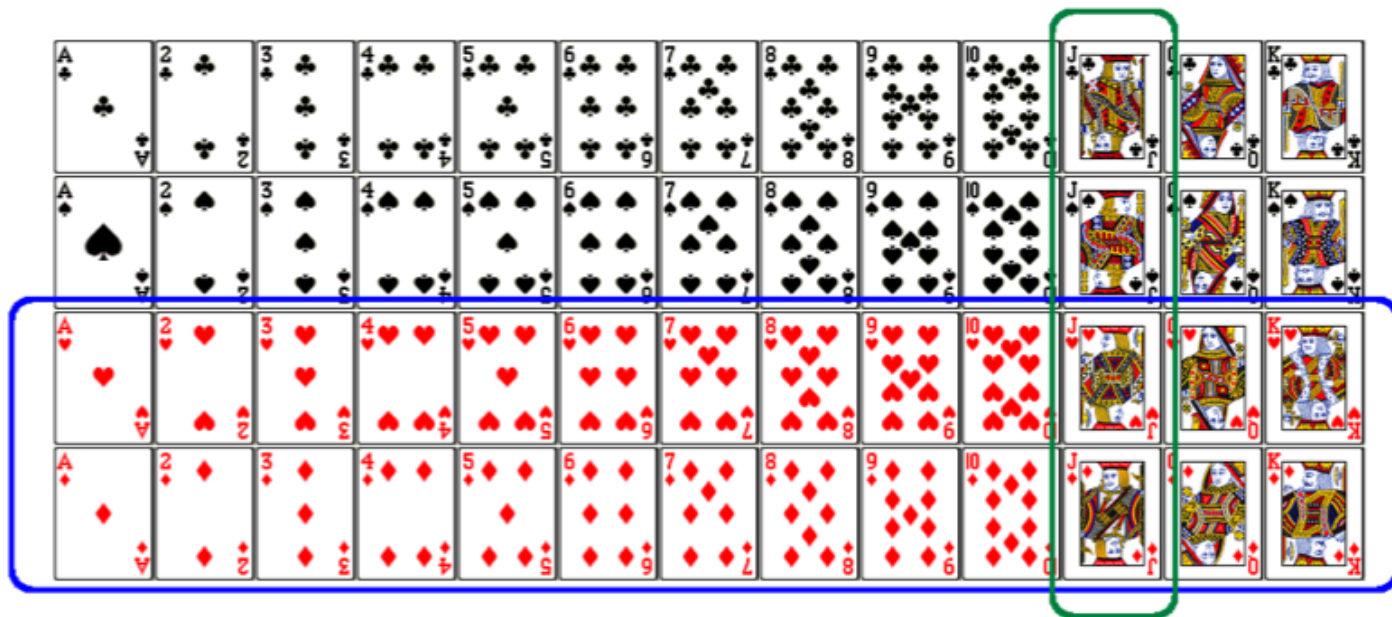


# Union of non-disjoint events

What is the probability of drawing a jack or a red card from a well shuffled full deck?



$$\begin{aligned} P(\text{jack or red}) &= P(\text{jack}) + P(\text{red}) - P(\text{jack and red}) \\ &= \frac{4}{52} + \frac{26}{52} - \frac{2}{52} = \frac{28}{52} \end{aligned}$$