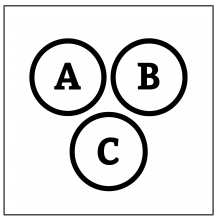
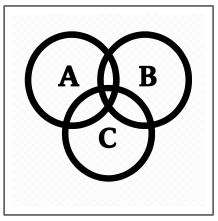
M Probability M



$S = \{B, B, R, R, R\}$

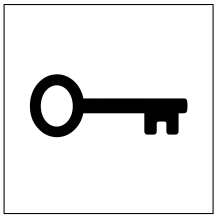


$\text{⋙}(S, BB) = \text{⋙}(S, B) \times \text{⋙}(S, B) = 0.40 \times 0.25 = 0.10$
$\text{⋙}(S, BR) = \text{⋙}(S, B) \times \text{⋙}(S, R) = 0.40 \times 0.75 = 0.30$
$\text{⋙}(S, RB) = \text{⋙}(S, R) \times \text{⋙}(S, B) = 0.60 \times 0.50 = 0.30$
$\text{⋙}(S, RR) = \text{⋙}(S, R) \times \text{⋙}(S, R) = 0.60 \times 0.50 = 0.30$

$\text{◍}(S, BB) = \text{◍}(S, B) \times \text{◍}(S, B) = 0.40 \times 0.40 = 0.16$
$\text{◍}(S, BR) = \text{◍}(S, B) \times \text{◍}(S, R) = 0.40 \times 0.60 = 0.24$
$\text{◍}(S, RB) = \text{◍}(S, R) \times \text{◍}(S, B) = 0.60 \times 0.40 = 0.24$
$\text{◍}(S, RR) = \text{◍}(S, R) \times \text{◍}(S, R) = 0.60 \times 0.60 = 0.36$

$S = R, R, R, R, R, B, B, B, G, G$
$P(\text{⋙}(S, RR) + \text{⋙}(S, BB) + \text{⋙}(S, GG)) = ?$

M Probability M



$S = R, R, R, R, R, B, B, B, G, G$

$\text{⩷}(S, 2) = \binom{10}{2} = 45$

$\text{⩷}(S, RR) = \binom{5}{2} = 10$

$\text{⩷}(S, BB) = \binom{3}{2} = 3$

$\text{⩷}(S, GG) = \binom{2}{2} = 1$

$P(\text{⩷}(S, RR) + \text{⩷}(S, BB) + \text{⩷}(S, GG)) = (\text{⩷}(S, RR) + \text{⩷}(S, BB) + \text{⩷}(S, GG))/\text{⩷}(S, 2) = (10 + 3 + 1)/45 = 14/45 \approx 0.31$