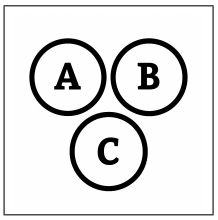
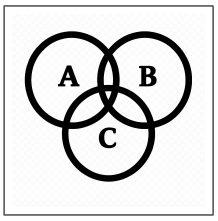
U Probability U



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



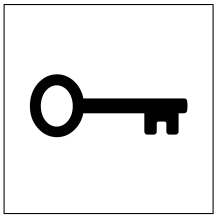
$$\text{⋶}(S, BB) = \text{⋶}(S, B) \times \text{⋶}(S, B) = 0.40 \times 0.25 = 0.10$$
$$\text{⋶}(S, BR) = \text{⋶}(S, B) \times \text{⋶}(S, R) = 0.40 \times 0.75 = 0.30$$
$$\text{⋶}(S, RB) = \text{⋶}(S, R) \times \text{⋶}(S, B) = 0.60 \times 0.50 = 0.30$$
$$\text{⋶}(S, RR) = \text{⋶}(S, R) \times \text{⋶}(S,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

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

$S = \{W, W, H, H, H, H, A, A, A, A, A, A, A\}$

$P(\text{⋶}(S, W)) \times P(\text{⋶}(S, HH)) \times P(\text{⋶}(S, AAA)) = ?$

U Probability U



$S = \{W, W, H, H, H, H, A, A, A, A, A, A, A\}$

$\text{⋵}(S, 6) = \binom{13}{6} = 1,716$

$\text{⋵}(S, W) = \binom{2}{1} = 2$

$\text{⋵}(S, HH) = \binom{4}{2} = 6$

$\text{⋵}(S, AAA) = \binom{7}{3} = 35$

$P(\text{⋵}(S, W)) \times P(\text{⋵}(S, HH)) \times P(\text{⋵}(S, AAA)) = (\text{⋵}(S, W) \times \text{⋵}(S, HH) \times \text{⋵}(S, AAA))/\text{⋵}(S, 6) = (2 \times 6 \times 35)/1,716 = 420/1716 \approx 0.24$