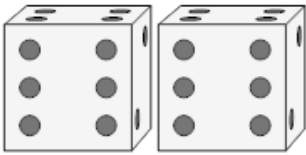


## Probability Union, Intersection, Complement - Example Problem to Name

1 What set operation would give you the probability of rolling a 6 twice in a row?

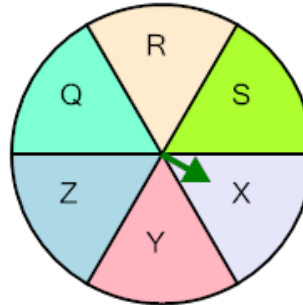


A  $6_1$  intersect  $6_2$

B  $6_1$  conditional on  $6_2$

C  $6_1$  union  $6_2$

2 What set operation would give you the probability of not spinning 'X'?



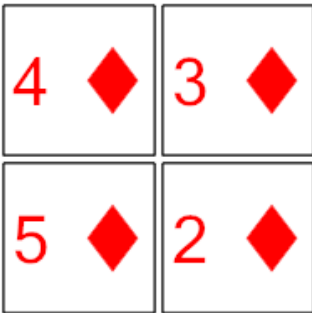
A (X) intersect (X)

B (X) conditional on (X)

C (X) union (X)

D Complement of (X)

3 What set operation would give you the probability of drawing a card that is a diamond, given that it is under 6?



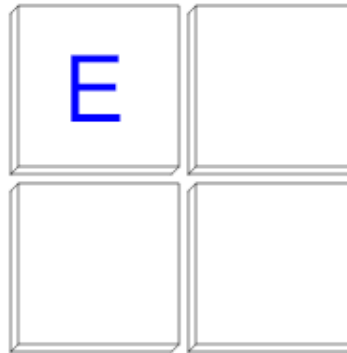
A (diamonds) union (under 6)

B (diamonds) intersect (under 6)

C (diamonds) conditional on (under 6)

D (under 6) conditional on (diamonds)

4

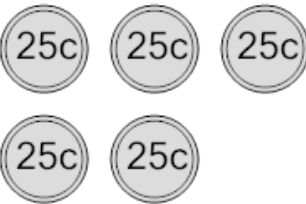


What set operation would give you the probability of the selected letter being 'E', if you know that the selected letter is before 'N' in the alphabet?

A ('E') conditional on (before 'N')

B (before 'N') conditional on ('E')

5 What set operation would give you the probability of getting exactly 3 heads when flipping 5 coins, given that the first flip was heads?



A Complement of (3 heads)

B (3 heads) conditional on (first is heads)

C (3 heads) intersect (first is heads)

D (first is heads) conditional on (3 heads)

6 What set operation would give you the probability of flipping tails twice in a row?



A  $T_1$  intersect  $T_2$

B  $T_1$  conditional on  $T_2$

C  $T_1$  union  $T_2$

7 What set operation would give you the probability of not drawing a card that is a spade?



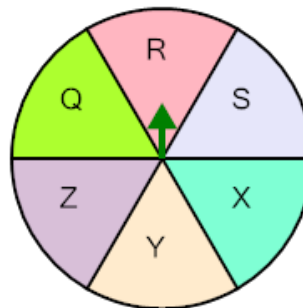
A (spades) union (spades)

B (spades) conditional on (spades)

C Complement of (spades)

D (spades) intersect (spades)

8 What set operation would give you the probability of spinning 'R' twice in a row?



A  $R_1$  intersect  $R_2$

B Complement of  $R_1$

C  $R_1$  conditional on  $R_2$