



# Probability

## with a pack of playing cards

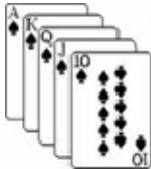
There are 52 cards in a pack.

There are 4 suits in a pack:

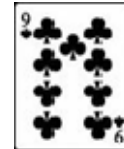
Hearts



Diamonds



Spades



Clubs

Each suit has 13 cards: Ace, 2, 3, ..., 10, Jack, Queen and King.

1. What is the probability of picking an ace?
2. What is the probability of picking a club?
3. What is the probability of picking a red Queen?
4. What is the probability of picking a black card?
5. What is the probability of picking the Ace of Spades or the Jack of Diamonds?

## Answers

1. What is the probability of picking an ace?

There are 4 aces, one in each suit, so the probability is  $\frac{4}{52} = \frac{1}{13}$

2. What is the probability of picking a club?

There are 13 clubs, so the probability is  $\frac{13}{52} = \frac{1}{4}$

3. What is the probability of picking a red Queen?

There are 2 red Queens, the Queen of Hearts and the Queen of Diamonds, so the probability is  $\frac{2}{52} = \frac{1}{26}$

4. What is the probability of picking a black card?

There are 13 Clubs and 13 Spades, so the probability of picking a black card is  $\frac{26}{52} = \frac{1}{2}$

5. What is the probability of picking the Ace of Spades or the Jack of Diamonds?

There is one Ace of Spades and one Jack of Diamonds in the pack, so the probability is  $\frac{2}{52} = \frac{1}{26}$