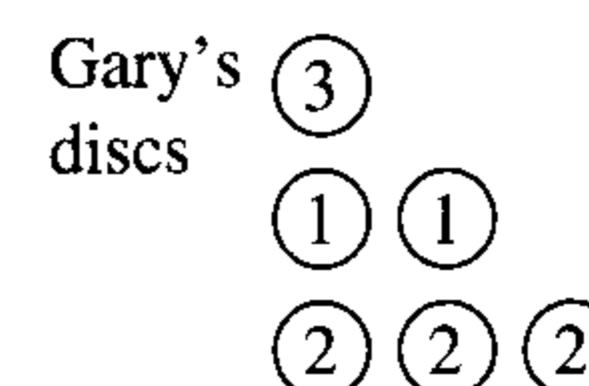
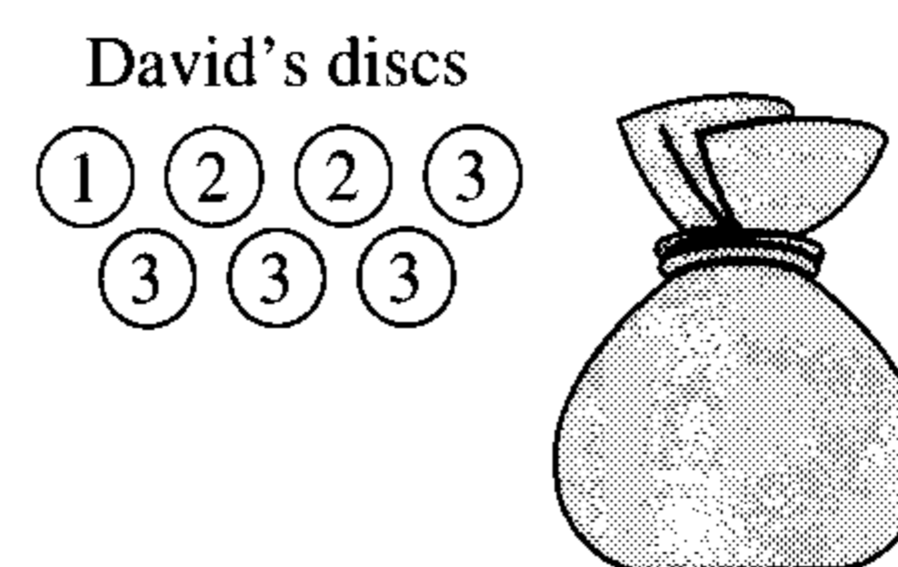


## Exercise 2

- One card is picked at random from a pack of 52.  
Find the probability that it is
  - the Queen of diamonds
  - a ten
  - a diamond.
- Ten discs numbered 1, 3, 3, 3, 4, 7, 8, 9, 11, 11 are placed in a bag. One disc is selected at random.  
Find the probability that it is
  - an even number
  - a three
  - less than 6.

- David puts these numbered discs in a bag.
  - He shakes the bag and takes one disc without looking. What number is he most likely to get?
  - Erica wants to put discs in a bag so that it is *less likely* that she will pick a 3 than a 2.  
What discs could she put in her bag?
  - Gary has got these discs in his bag.  
He wants to put some more discs in the bag to make it equally likely that he will pick a 1, a 2 or a 3. What discs should he add?



- There are 12 balls in a bag. Natasha takes a ball from the bag, notes its colour and then returns the ball to the bag. She does this 20 times.

Here are her results.

Red	5
White	1
Green	11
Blue	3

- What is the smallest number of red balls there *could* be in the bag?
- Natasha says 'There cannot be any yellow balls in the bag because there are no yellows in my table.'  
Explain why Natasha is wrong.
- Natasha takes one more ball from the bag. What is the most likely colour of the ball?