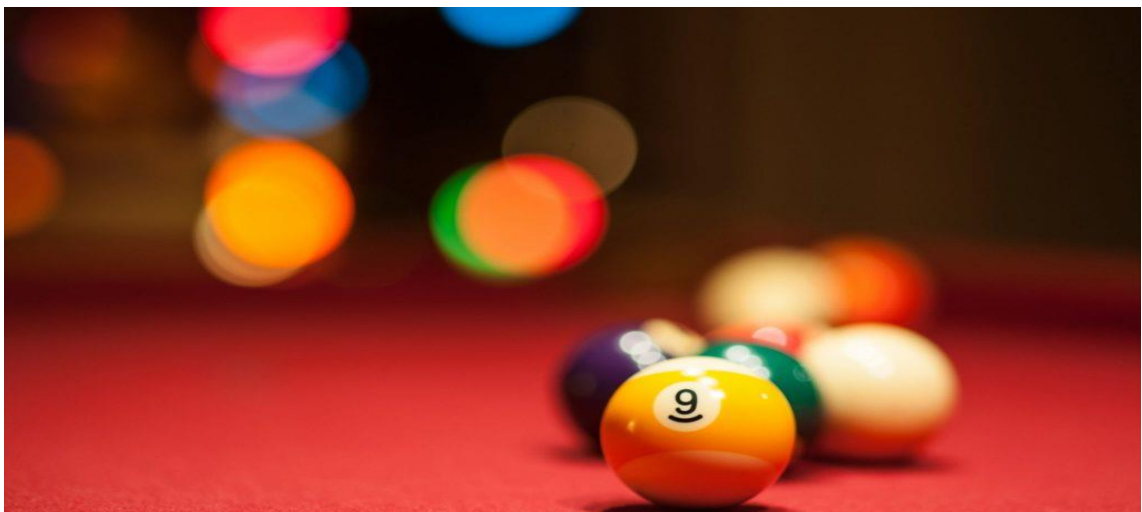


1) There are 100 black socks and 100 white socks mixed up in a drawer. If you have to pick socks blindly from the drawer, how many socks do you need to take out to be sure that you have a matching pair of socks?

2) There are 9 balls which weigh the same except for one, which is heavier than the others. What is the minimum number of weighings should you perform to find the ball with higher weight?



3) Four people A, B, C, D need to cross a bridge at night, and they have only one torch. The bridge is too dangerous to cross without a torch and is strong enough to support a maximum of two people at a time.

4) There are 100 doors and they are all closed. A person walks through these 100 doors 100 times. Each time he toggles some of the doors, i.e. closes if open and opens if it is closed. In the first walk, he will toggle all the doors. In the second walk, he will toggle every second door, i.e., 2nd, 4th, 6th, 8th and so on. In the third walk, he will toggle every third door, i.e. 3rd, 6th, 9th and so on. So after the 100th walk, which doors

will be open and which will be closed?



5) There are two sand timers which show 4 minutes and 7 minutes respectively. What would be the best approach to get a time of 9 minutes using both the sand timers, at one time or one after another or in any other combination?

