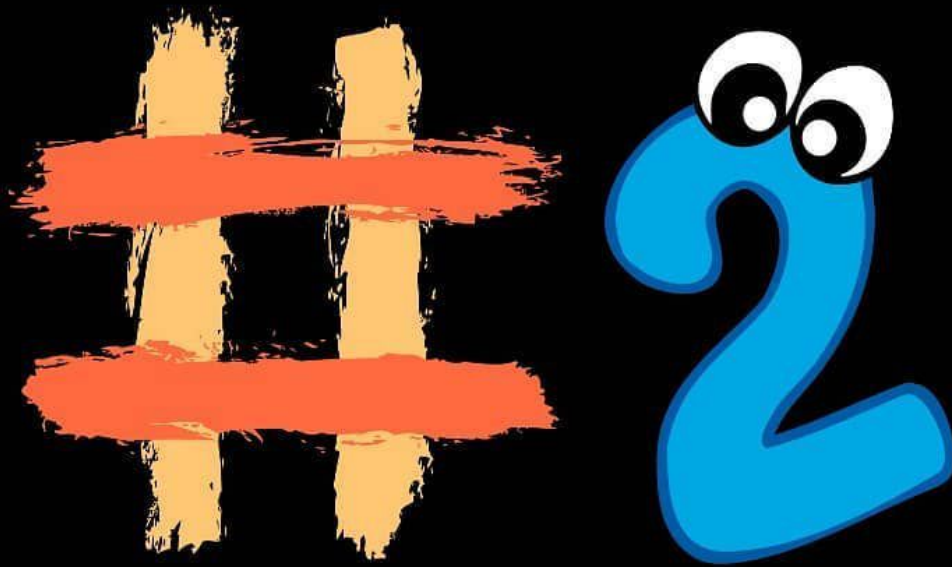# 10 MOST ASKED PUZZLES IN A DATA SCIENCE INTERVIEW

#1

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. They take 1, 2, 5 and 8 minutes respectively. What is the shortest time needed for all four of them to cross the bridge?

#2

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?

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#3

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?

#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?

#6

There are four men A, B, C and D buried up to their necks in the ground in a straight line. Between A & B there is an opaque wall. They cannot move and can only look forward such that A and B can only see their respective sides of the wall, C can see B, and D can see B and C. They are all aware that each of them is wearing a hat, and that two of them are wearing a black hats while the other two are wearing white hats. They don't know what color they are wearing. In order to avoid being executed, one of them must call out to the executioner the color of their hat. If they get it wrong, everyone will be shot. After 60 seconds, one of them calls out. Which one of them calls out? How can he be certain he knows the color of his hat? There's no outside influence and no other way of communicating.

#7

There are two ropes and a lighter. Each rope takes exactly 60 minutes to burn completely. But the ropes do not burn at a constant rate, so you do not know that half the rope burns in 30 minutes. For instance, if one end of the rope is lit, it may take 5 minutes to burn the first half of it, and 55 minutes to burn the second half. How can you measure exactly 45 minutes by burning the ropes?

#8

There are 2 jars with 50 red marbles and 50 blue marbles. You need to place all the marbles into the jars in such a way that if you blindly pick one marble out of the jar, there are maximum chances of it being red. While picking, you will first randomly pick a jar and then randomly pick a marble out of that jar. You can arrange the marbles however you like, but each marble must be in a iar.

#9

How many times a day do the minute and hour hands of a clock overlap?

#10
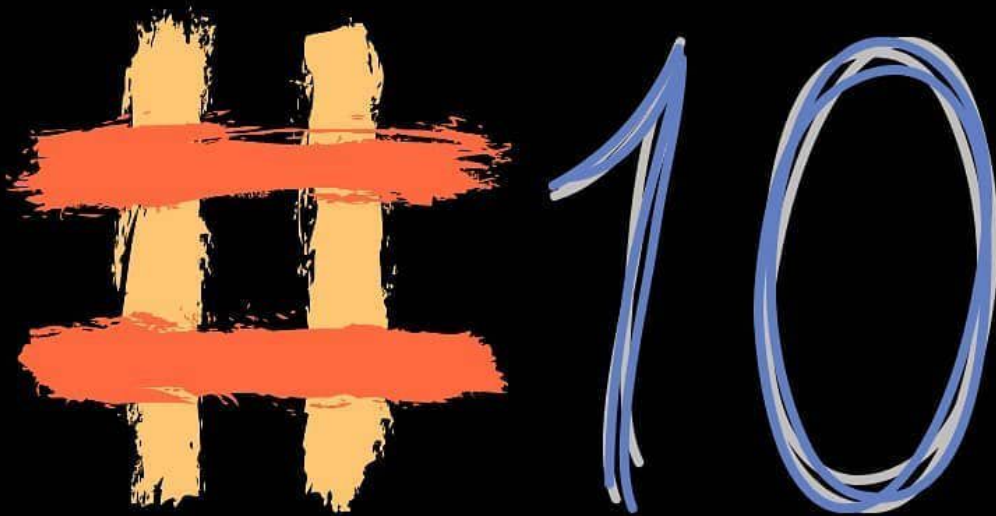
At a party, everyone shook hands with everybody else. There were 66 handshakes. How many people were at the party?

Check the answers in our telegram channel