**Puzzle 24 | (10 Coins Puzzle)**

Last Updated : 27 Jul, 2023

You are blindfolded and 10 coins are placed in front of you on the table. You are allowed to touch the coins but can’t tell which way up they are by feel. You are told that there are 5 coins head up, and 5 coins tails up but not which ones are which.

Can you make two piles of coins each with the same number of heads up? You can flip the coins any number of times.

**ANSWER:**

**Yes**

**Explanation:**

Make 2 piles with an equal number of coins. Now, flip all the coins in one of the piles.

Let’s consider a simple case:

**P1:** H T T T T   
**P2:** H H H H T

By flipping **P1**

**P1:** T H H H H

**P2:** H H H H T

**P1**(heads) = **P2**(heads)

Q**There are 10 stacks of 10 coins each. Each coin weighs 10 gms. However, one stack of coins is defective and each coin in that stack weights only 9 gms. What is the minimum number of weights you need to take to find which stack is defective? How?**

**Ans**

You only need to make ONE weighing.

Place 55 coins on the scale: one coin from stack #1, two from stack #2, three from stack #3 … up to ten coins from stack #10. Weigh the 55 coins together.

If all the coins were genuine, then the scale would show 550 grams, but we know that there have to be some counterfeit coins in the pile (because we took at least one from every stack.) Let’s say that our stack of 55 coins weighs 544 grams. That’s six grams short of 550, which means that six coins in the stack are bogus. That means that stack #6 is the one with the underweight coins, since that’s the stack from which we took six coins. If the stack had weighed 549 grams, we’d be one gram short and so we’d know that stack #1 was the bad one, and so on.

Q Given a sentence say “there is one chair two table, and three people in one room ..” print occurence of number name eg “one”, “two”, … , “nine” (range 1 to 9)