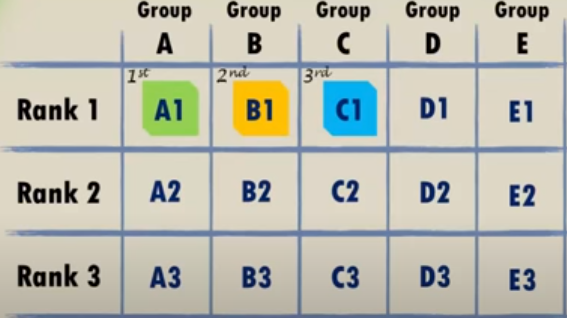
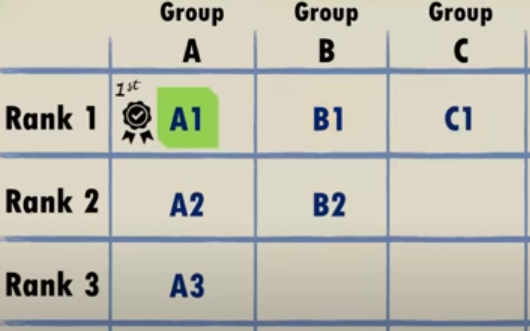
### There are 5 lanes on a race track. One needs to find out the 3 fastest horses among total of 25.

* The approach entails conducting 5 races where each race group would involve 5 horses.
* a sixth race is conducted between winners of first 5 races to determine the 3 fastest







**3 mislabelled jars?**

A+O 🡪apple 🡪 apple(A+O me se apple nikla to sahi jawab hai apple)

Apple🡪A/O🡪O🡪 O(A me se apple yaan orange nikal skta hai suppose orange nikal gya to sahi jawab hai orange)

O🡪A+O

### There are 8 batteries, but only 4 of them work. You have to use them for a flashlight which needs only 2 working batteries.

Total attempts are 7.

We have to make the combination of 3+3+2

### You pull out 2 balls, one after another, from a bag which has 20 blue and 13 red balls in total. If the balls are of similar colour, then the balls are replaced with a blue ball, however, if the balls are of different colours, then a red ball is used to replace them. Once the balls are taken out of the bag, they are not placed back in the bag, and thus the number of balls keep reducing. Determine the colour of last ball left in the bag.

Observe that red ball maintains the odd order so it would be the last ball that left in bag

### There are 10 stacks of 10 coins each, where each coin weighs 10gms. However, one of the stacks is defective, and that stack contains coins which weigh 9gms. Determine the minimum number of weights needed to identify the defective stack.

We have to measure the coins only one time.

Took 1 coin from pile 1, 2 coins from pile 2….. 10 coin from pile 10

If the difference is of 1gm then 1st pile is defective, if the difference is of 5gm then 5th pile is defective.

**You have two identical length wires which take an hour to burn. But, they don’t burn at the same speed. How do you measure 45 minutes based on the burning?**

You first light up three ends of the two wires. The remaining end you can light up once the first wire is completely burnt. When the second wire is completely burnt, the time is 45 minutes.

**Arun has three sons and his friend Shakti wants to know their ages. Arun gives him three hints as Shakti couldn’t answer till the third hint –**

* **The product of their ages is 72**
* **The sum of their ages is the same as my house number**
* **The oldest of sons love chocolate icecream**

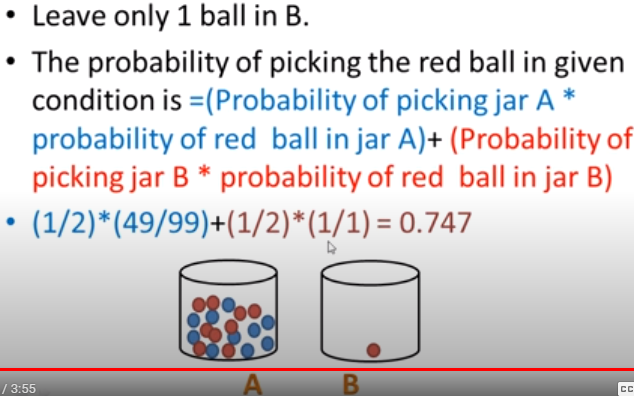
First, you will get 12 possibilities for the equation XxYxZ = 72. Next, the sum of each of the numbers is added. You get a variety of numbers but there are two possibilities where the sum is 14. 2+6+6 and 3+3+8. Arun mentioned that his oldest like chocolate icecream, which meant there is only one older child and hence, the sons ages are 3,3 and 8.

**A contract employee needs to be paid everyday but the employer has only one rod of 7 units of gold. He can make only at max 2 cuts. How does he manage to pay him?**

The employer makes two cuts so that he has units of 1, 2 and 4.

Day 1, the employer gives him 1 unit. On day 2, the employer takes back the 1 unit and gives him 2. On day 3, he gives him 1 unit. On day 4, he takes back the 1 and 2 units and gives him a 4 unit. So on until day 7 when he gives him all the units.

**You have two bowls which will hold 50 balls each. Now you have 50 blue balls and 50 red balls and you cannot place all balls of same color in each bowl. Now you have to pick a random ball from a random bowl. How do you maximize the probability of getting a red ball?**



**Your task is to place 10 coconuts in 5 lines such that each line has 4 coconuts.**

You have to place them in a star shape(bachpan vala star) with the centre being a pentagon. Each coconut will be placed at the intersection and meeting point of 2 lines.

**Three people are in a room. Rahul looks at Nisha. Nisha looks at Sahil. Rahul is married but Sahil is not married. At any point, is a married person looking at an unmarried person? Yes, No or Cannot be determined.**

Yes, at every point there is a married person looking at an unmarried person. The only person whose information we don’t know is Nisha. Assume Nisha is married, she is looking at Sahil. So, married person is looking at unmarried person. Now assume Nisha is unmarried, Rahul is looking at Nisha. So even then married person is looking at an unmarried person.

**Three ants are located on an equilateral triangle. Now each ant picks a random direction and starts to move along the triangle. What is the probability that they don’t collide?**

0.25. This is because the ants will not collide only if they all move in the same direction. Now, each ant has two choices, to move either side – clock wise or anti-clockwise. Hence,

P(No collision) = P(All ants go in clockwise direction) + P(All ants go in anti-clockwise direction)

P = 0.5\*0.5\*0.5 + 0.5\*0.5\*0.5 = 0.25

**Crossing the Bridge Puzzle?**

Times for each person: 1 min, 2 mins, 7 mins and 10 mins

First 1 and 2 go =2

Then 1 come and 7 & 10 go=1+10=11

Then 2 come and 1 & 2 go=2+2=4 **total time** taken is **17**

**Heaven’s Gate Probelm**

Agar me saamne vale se puchunga ki heaven ki taraf konsa gate jaata hai to uska answer kya hoga

**100 door puzzles**

Only doors which are at perfect square remains open

### Sand timers puzzle

From 4 and 7 minutes calculate 9 minutes

Start with 4 and 7🡪 in 7, 3 minutes remaining

Start with 4 again 🡪 3 minutes completed and 1 minute remain in 4

Start with 7🡪 1 minute is completed in 4 and 1 min completed in 7

Now turn the 7 which complete 1 minute only, then we are able to calculate 9 minutes