**Puzzle 1**

An employee works for an employer for 7 days. The employer has a gold rod of 7 units. How does the employer pay the employee so that the number of employee’s rod units increases by one at the end of each day? The employer can make at most 2 cuts in the rod. (Hint: After the end of the day, employees can’t spend any part of the rod).

**APPROCH:**

First the rod is of 7 units

7🡪6 🡪5🡪4🡪3🡪2🡪1

As he can’t spend the money after sunset the daily wages are mostly given after sun set

First day gives him 1 unit

Second day take the 1 unit back and give him 2 units

Third day takes 2 unit and give him 3 units

Fourth day takes 3 unit and give him 4 units

Fifth day takes 4 unit and give him 5 units

Sixth day takes 5 unit and give him 6 units

Seventh takes 6 unit and give him 7 units

**Puzzle 2**

There are 25 horses among which you need to find out the fastest 3 horses. You can conduct a race among at most 5 to find out their relative speed. At no point can you find out the actual speed of the horse in a race. Find out the minimum number of races required to get the top 3 horses.

**APPROCH:**

as there are 25 horses each time, we can conduct a race between 5 so at first, we can make 5 teams and race among them at last we have 1 winner for each team 5-winners from 5-teams and again we can conduct a race between them and among these 5 we can get the top 3

so the total races we need to conduct to get top 3 horses would be 6