Puzzle – 37

Q- Three Bugs Triangle Puzzle

There is an equilateral triangle and three bugs are sitting on the three corners of the triangle. Each of the bugs picks up a random direction and starts walking along the edge of the equilateral triangle. What is the probability that none of the bugs crash into each other?

My Approach and Solution –

We can find the probability that none of the bugs crash into each other by calculating the favourable outcomes and total outcomes.

So, the favourable outcomes are 2 i.e., if all the bugs start moving in either clockwise or anti-clockwise direction. Total number of outcomes = 2 * 2 * 2 = 8.

Therefore, the probability is 2/8 = ¼ = **0.25**