**Fair Game**

The Golf Dice Game

Each player rolls three dice and continues to throw them until a double is thrown. Each throw that doesn't contain a double counts as a stroke. The throw that contains a double counts as the hole. The number of strokes and the throw that contained the double are counted and noted down for each player. 18 rounds are played representing the 18 holes of a golf course and the player with the lowest total of throws at the end of the game wins.

**Probability of rolling a double**

* The sample space is 216
* 6x3x5=90
* 90/216= 5/12= 0.42

Of the three numbers two of them to be same is (1,1) (2,2) (3,3) (4,4) (5,5) (6,6) = 6 doublets

Every one of this can happen in 3 different ways, that is (1,1,x) (1,x,1) (x,1,1) = 3 ways

Now x can be any of the remaining three numbers, that is (2,1,1) (3,1,1) --- = 5

So total number of ways two of them can be same = 6 x 3 x 5 = 90