1.

* Die A cannot have more than 4 Spots on a face.
* Die A may have multiple faces with the same number of spots.
* Die B can have as many spots on a face as necessary i.e. even more than 6.

Input: ● Die\_A = [1, 2, 3, 4, 5, 6] & Die B = Die\_A = [1, 2, 3, 4, 5, 6] Output: ● A Transform Function undoom\_dice that takes (Die\_A, Die\_B) as input & outputs New\_Die\_A = [?, ?, ?, ?, ?, ?],New\_Die\_B = [?, ?, ?, ?, ?, ?] where, ● No New\_Die A[x] >4

Explanation:

This code introduces randomness to the values of two dice by generating new values based on probability calculations and a pseudorandom number generator. The goal is to simulate a transformation of the dice while maintaining some connection to the original probabilities.

1]calc\_probs calculates the probabilities of different outcomes when rolling two six-sided dice.It uses nested loops to simulate all possible combinations of two dice rolls.

2]The LCG class represents a basic linear congruential pseudorandom number generator.

3]The gen\_rand method generates a pseudorandom number and updates the internal state.

4]The function undoom\_dice transforms the values of two sets of dice (A and B).

5]It uses the LCG to generate pseudorandom numbers for creating a new set of dice values (n\_A).

6]Probabilities for the new dice values (n\_probs) are calculated.

7]The values of the second set of dice (B) are transformed based on the ratio of probabilities between the original and new dice.

8]The undoom\_dice function is used to transform these dice.

Code and output;

