**Logical solution to problem statement 1:-**  
  
1. Total Outcomes:

* Rolling two six-sided dice results in 36 different possible outcomes.

2. Sum Distribution:

* We create a system to find all possible sums (from 2 to 12) by considering every combination of the dice.
* The most frequent sums are those in the middle of the range (like 7), while the least frequent sums are at the extremes (like 2 and 12).

3. Calculating Probabilities:

* We determine how often each sum appears out of the 36 possible outcomes.
* By dividing the count of each sum by 36, we get the probability of that sum occurring.
* The probabilities help us understand the likelihood of each possible sum when rolling two dice.

**Logical solution to problem statement 2:-**  
  
1. Start with two standard dice (both 1 to 6).  
2. Look for new dice setups:

* Dice A with numbers from 1 to 4.
* Dice B with numbers from 1 to 8 (assuming the number to be since 8+4=12 and 12 has only 1 probability)

3. Check if these new dice:

* Follow the rules for Dice A (numbers 1 to 4).
* Follow the rule for Dice B (sum of numbers more than 21).

4. Ensure the new dice:

* Give the same chances of rolling each possible sum as the original dice.

5. If found:

* Print the new numbers for Dice A and Dice B.

6. If not found:

* Print that no suitable new dice were found.