

Question 4

We are given a bowl that contains 6 balls, numbered from 1 to 6. We extract two balls and denote X and Y the numbers on the ball obtained at the first (second) extraction, and $W = \max(X, Y)$ the maximum value obtained. In all scenarios, describe the probability distribution of W .

Part 1: In the first scenario, assume that the extractions are made with replacement.

Solution

Answer

□

Part 2: In the second scenario, assume that the extractions are performed without replacement.

Solution

Answer

□

Part 3: In the third scenario, assume that after the first extraction, we replace the ball in the urn, together with another one with the same number.

Solution

Answer

□