Part-A code & output: -

main.py

```python
#The total number of combinations when rolling two six-sided dice is calculated as 6 * 6 = 36.
total_combinations = 6 * 6
print("Total Combinations:", total_combinations)
#This section generates a 6x6 matrix (distribution) to represent all possible sums resulting from the two dice rolls.
# For example, distribution[0][0] represents the sum when both dice roll a 1, distribution[0][1]
distribution = [[0] * 6 for _ in range(6)]
#probability to store the probabilities of getting each possible sum (from 2 to 12) when rolling two dice.
for i in range(1, 7):
    for j in range(1, 7):
        distribution[i-1][j-1] = i + j

print("Distribution of Combinations:")
for row in distribution:
    print(row)
probability = [0] * 11

for i in range(1, 7):
    for j in range(1, 7):
        probability[i+j-2] += 1

total_combinations = 6 * 6
'''Probability of Sum = 2:
The sum 2 can only be obtained when both dice roll a 1. There's only one combination (1, 1) that results in a sum of 2.
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Therefore, the probability of getting a sum of 2 is 1/36.

Probability of Sum = 3:
The sum 3 can be obtained in two ways: (1, 2) or (2, 1).
Therefore, the probability of getting a sum of 3 is 2/36 or 1/18.

Probability of Sum = 4:
Similarly, the sum 4 can be obtained in three ways: (1, 3), (2, 2), or (3, 1).
Therefore, the probability of getting a sum of 4 is 3/36 or 1/12.'''
print("Probability of Sums:")
for i in range(2, 13):
    print("P(Sum =", i, ") =", probability[i-2] / total_combinations)
```

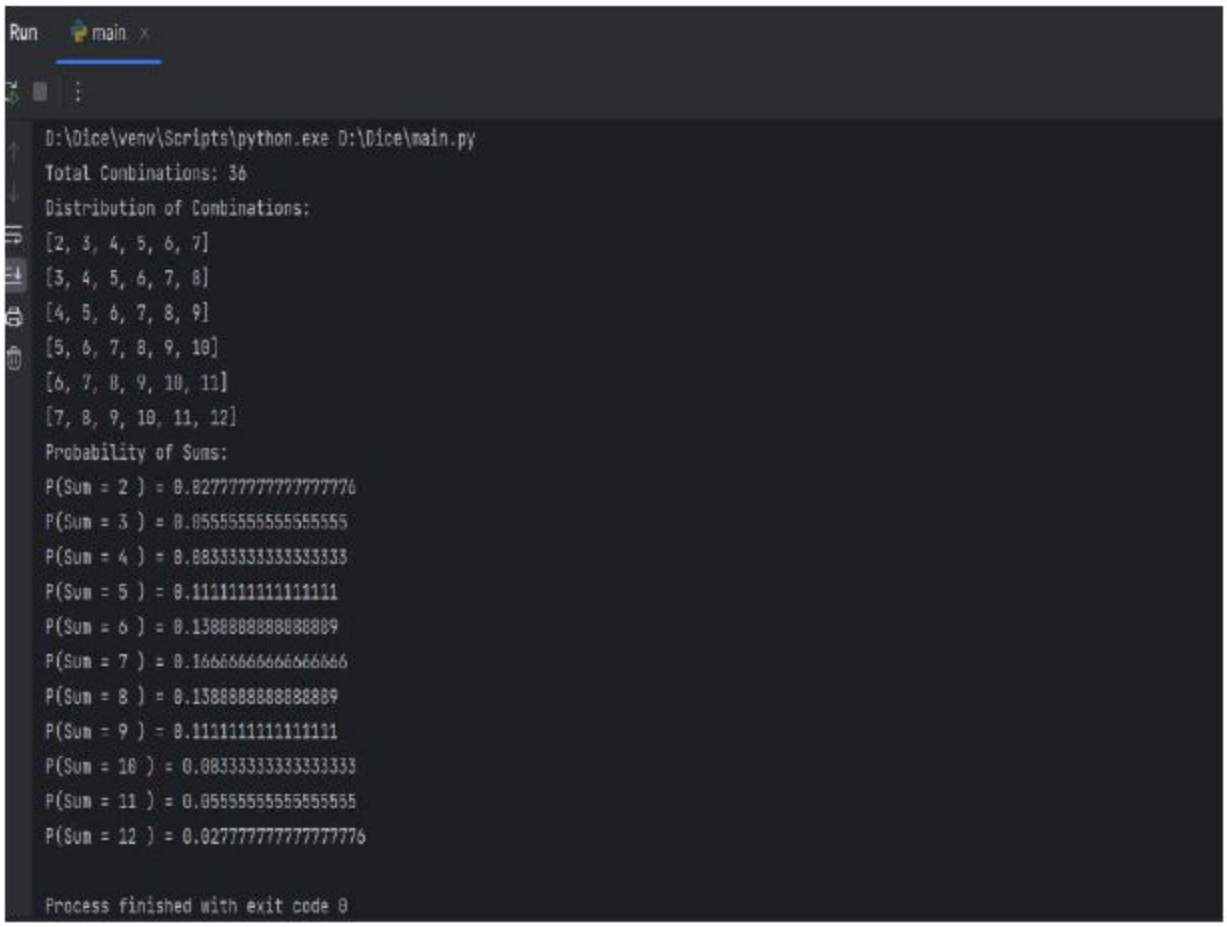
Run
main
D:\Dice\venv\Scripts\python.exe D:\Dice\main.py
Total Combinations: 36
Distribution of Combinations:
[2, 3, 4, 5, 6, 7]
[3, 4, 5, 6, 7, 8]
[4, 5, 6, 7, 8, 9]
[5, 6, 7, 8, 9, 10]
[6, 7, 8, 9, 10, 11]
[7, 8, 9, 10, 11, 12]
Probability of Sums:
P(Sum = 2) = 0.027777777777777776
P(Sum = 3) = 0.05555555555555555
P(Sum = 4) = 0.08333333333333333
P(Sum = 5) = 0.1111111111111111
P(Sum = 6) = 0.1388888888888889
P(Sum = 7) = 0.16666666666666666
P(Sum = 8) = 0.1388888888888889
P(Sum = 9) = 0.1111111111111111
P(Sum = 10) = 0.08333333333333333
P(Sum = 11) = 0.05555555555555555
P(Sum = 12) = 0.027777777777777776
Process finished with exit code 0