

Unique Paths:

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A robot is located at the top-left corner of a $m \times n$ grid (marked 'Start' in the diagram below).

The robot can only move either down or right at any point in time. The robot is trying to reach the bottom-right corner of the grid (marked 'Finish' in the diagram below).

How many possible unique paths are there?



Input: $m = 3, n = 7$

Output: 28

```
def uniquePaths(self, m: int, n: int) -> int:

    dp = [[0]*n for i in range(m)]

    for i in range(m-1,-1,-1):
        for j in range(n-1,-1,-1):
            if i==m-1 and j==n-1:
                dp[i][j] = 1
            elif i==m-1:
                dp[i][j] = 1
            elif j==n-1:
                dp[i][j] = 1
            else:
                dp[i][j] = dp[i+1][j]+dp[i][j+1]
    return dp[0][0]
```