

106. Computing a binomial coefficient

Code:

```
def binomial_coefficient(n, k):
    if k > n:
        return 0
    if k == 0 or k == n:
        return 1

    C = [[0 for _ in range(k + 1)] for _ in range(n + 1)]

    for i in range(n + 1):
        for j in range(min(i, k) + 1):
            if j == 0 or j == i:
                C[i][j] = 1
            else:
                C[i][j] = C[i - 1][j - 1] + C[i - 1][j]

    return C[n][k]

n = 5
k = 2
print(f"Binomial Coefficient C({n}, {k}) is {binomial_coefficient(n, k)}")
```

Output:

```
Binomial Coefficient C(5, 2) is 10
```

Time Complexity:

- $T(n) = O(n \cdot k)$