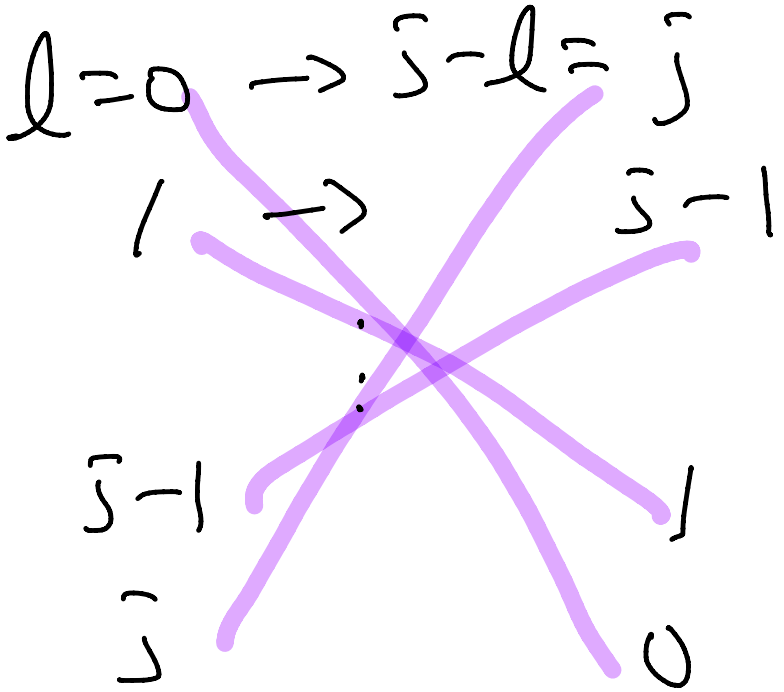
```
int main() {
    int n, k;
    cin >> n >> k;
    d[0][0] = 1LL;
    for (int i=1; i<=k; i++) {
        for (int j=0; j<=n; j++) {
            for (int l=0; l<=j; l++) {
                d[i][j] += d[i-1][l];
                d[i][j] %= mod;
            }
        }
    }
    cout << d[k][n] << '\n';
    return 0;
}
```

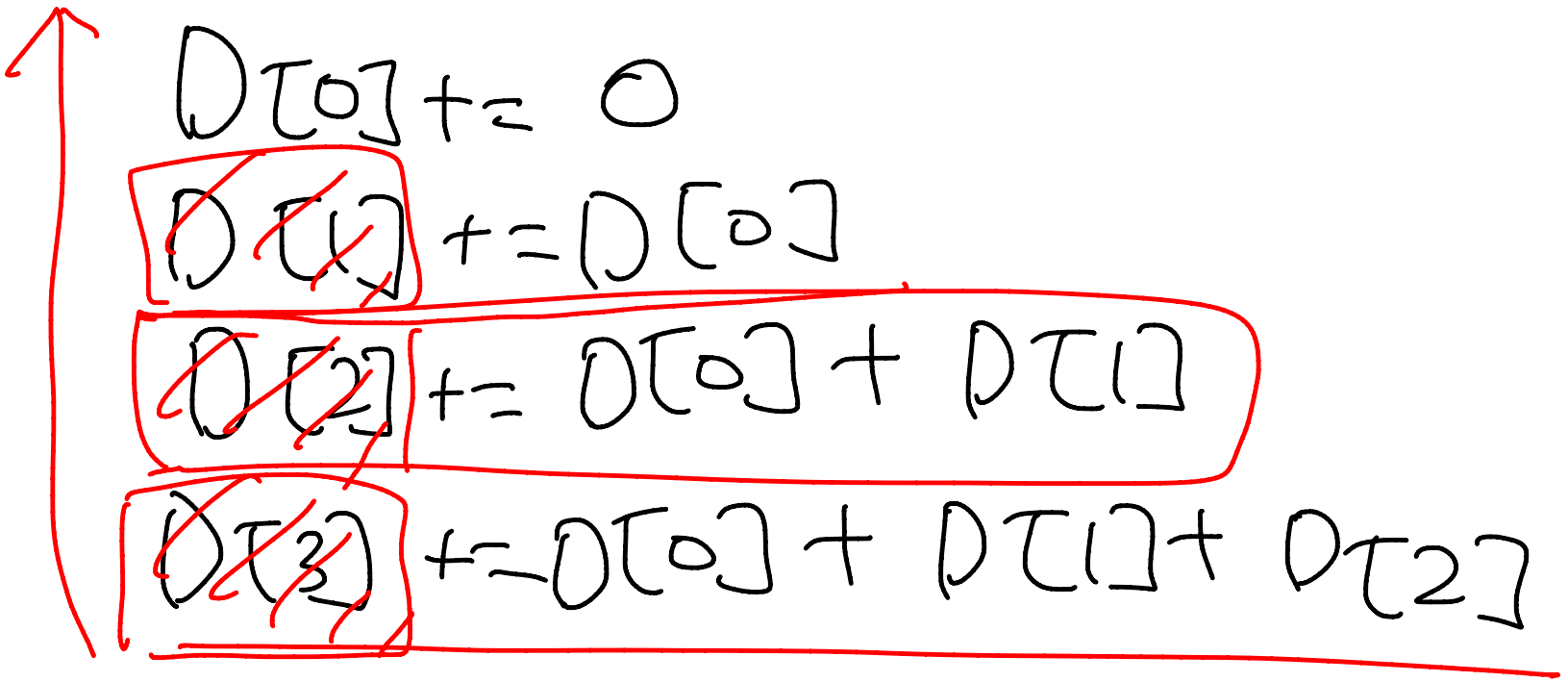


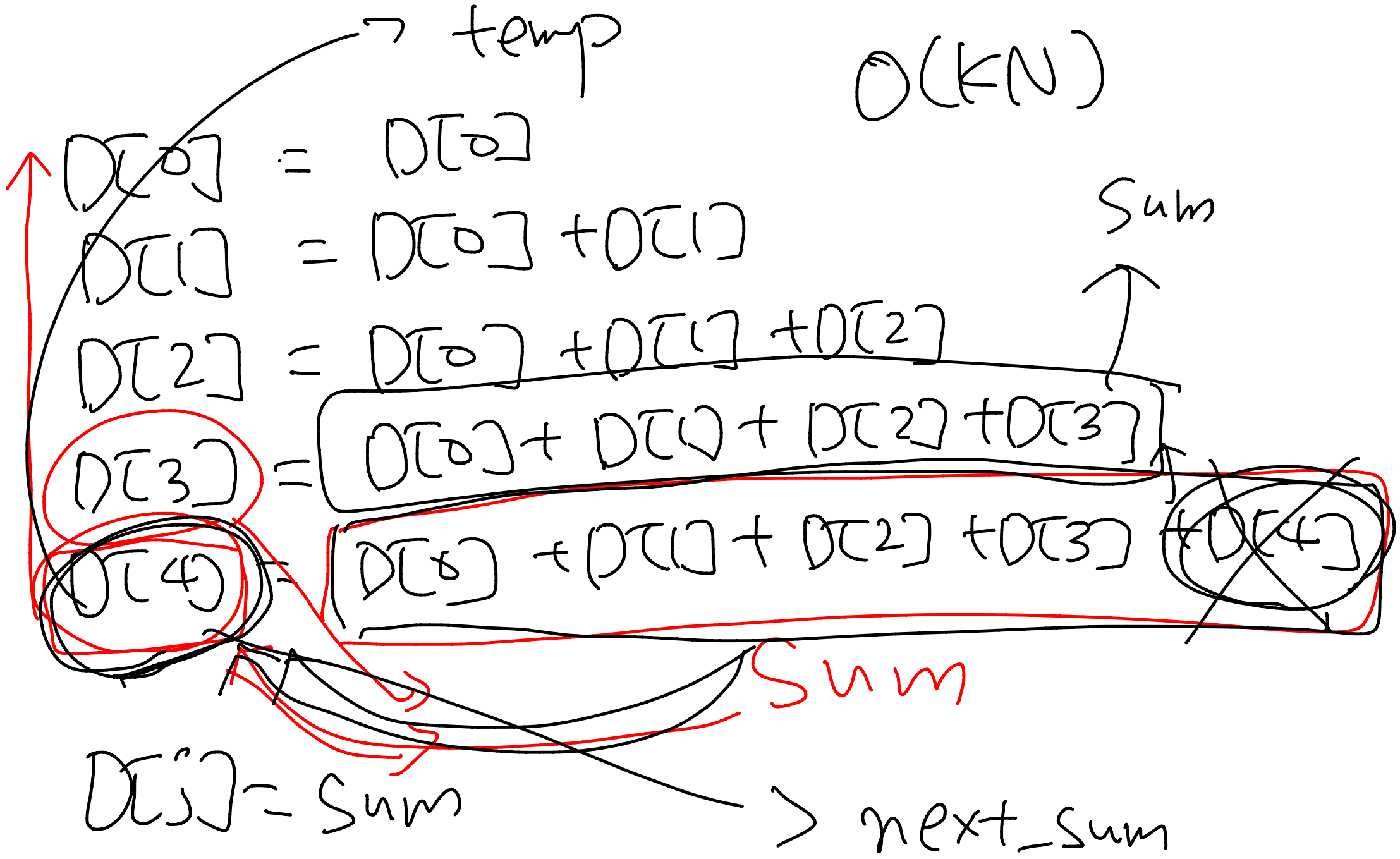
$$D[4][0] = D[3][0]$$

$$D[4][1] = D[3][0] + D[3][1]$$

$$D[4][2] = D[3][0] + D[3][1] + D[3][2]$$

$$D[4][3] = D[3][0] + D[3][1] + D[3][2] + D[3][3]$$


D[0] += 0
D[1] += D[0]
D[2] += D[0] + D[1]
D[3] += D[0] + D[1] + D[2]


temp
O(KN)
D[0] = D[0]
D[1] = D[0] + D[1]
D[2] = D[0] + D[1] + D[2]
D[3] = D[0] + D[1] + D[2] + D[3]
D[4] = D[0] + D[1] + D[2] + D[3] + D[4]
Sum
Sum
D[j] = Sum
next_sum