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| **Friend’s Pairing in C++** | |
| #include <iostream>  #include <vector>  using namespace std;  int main() {      int n = 3;      vector<int> dp(n + 1);      dp[1] = 1;      dp[2] = 2;      for (int i = 3; i <= n; i++) {          dp[i] = dp[i - 1] + dp[i - 2] \* (i - 1);      }      cout << dp[n] << endl;      return 0;  } | ****Dry Run with Iteration Table********Initial State**** dp = [?, 1, 2] // (dp[0] is unused) ****Iterating from**** i = 3 ****to**** n = 3  | **i** | **Calculation** | **Updated dp[i]** | | --- | --- | --- | | 3 | dp[3] = dp[2] + dp[1] \* (3 - 1) | dp[3] = 2 + 1 \* 2 = 4 |  ****Final**** dp ****Array**** dp = [?, 1, 2, 4] ****Final Output**** 4 |
| Output:- 4 | |