if(n == 1) return 5;

int mod = (int)(1e9+7);

int[][] trans = new int[][]{{0, 1, 0, 0, 0}, {1, 0, 1, 0, 0}, {1, 1, 0, 1, 1}, {0, 0, 1, 0, 1}, {1, 0, 0, 0, 0}};

int[][] dp = new int[n][5];

int res = 0;

for(int i = 0; i < 5; i++) dp[0][i] = 1;

for(int i = 1; i < n; i++) {

for(int j = 0; j < 5; j++) {

for(int k = 0; k < 5; k++) {

if(trans[j][k] == 1) {

dp[i][j] = (dp[i][j] + dp[i-1][k]) % mod;

}

}

if(i == n-1) res = (res + dp[i][j]) % mod;

}

}

return res;