**COMP9101 Ass03**

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手机屏幕截图

描述已自动生成

**3.**

This problem similar to the Q1, we can also use dynamic programming to solve the question.

We use dp[i] to store when we get to the i lily pad, the most flies we have eaten

Therefore, the base case shows below:

when i=1, dp[1] = f1;

when i=2, dp[2] = 0;

when i=3, dp[3] = 0;

when i=4, dp[4] = f1 + f4;

when i=5, dp[5] = f1 + f5;

when i=6, dp[6] = 0;

the recursion shows below:

dp[i] = max(dp[i-3]+ fi, dp[i-4]+ fi)

therefore, the time complexity of this problem is O(n);