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Question3:

Suppose Flies(i) means the maximum flies frog can eat from first lily pad to the ith lily pad.

Base case is

Flies(1) = f1

Flies(2) = 0

Flies(3) = 0

Flies(4) = f1+f4

Since if i > 5 F(i) is the destination from lily pad either i-3 or i-4

So Recursively Flies(i) can be represent by

Flies(i) = Max(Flies(i-3)+fi,Flies(i-4)+fi)

In the worst case

It take O(n) times