Problem 11.1

Run "Lis. Cpp". Please keep in mind that input for this file is in "Input1.txt".

Problem 11.2

a) Run "Sum Triangle.cpp". Please keep in mind that input for this file is in "Input2.txt".

b) Dynamic programming.

The time complexity is $\Theta\left(\frac{n(n+1)}{2}\right)$ as this is the number of time the loop runs or we could say $\Theta(n^2)$ as well.

The space space complexity on the other hand for creating a $n \times n$ matrix will also be $\Theta(n^2)$.

Brute Force

The time complexity would be $O(2^n)$ as that is the total number of sets that we would need to create

c) A greedy algorith would ~~create~~ always
see the max value left or right
to it but when we ao that we
would get ~~78~~ 7, 8, 1, 7, 5
which is not the optimum solution

Problem 11.3.

a) Rom "Sucba.cpp". keep in mind that input
is used through "input 3. txt".