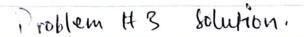
## Gamesh Budhathoki

## Problem # 1 Solution

$$p(7) = \max \{ P(6), p_7, p_7 + P(4) \} = \max(19, 9, 9+10)$$
= 19

Problem #2 Solution. M A R K M  $\mathcal{O}$ A 1\_ R Ö of WARKS and SMARK is 3 which is "ARK"



let l(i,j) = the length of the longest common subsequence of n(i-i) and y(i--i) that ends at it character in n and the jth character in y (zero if there is no such subsequence)

Base Cases

Problem # 4 Solution.

(w) = true iff it is possible to make though for value w

Base Cases

(C(0) = true

c(w) = false c(w) = false if N >0

((w) = V { ((N-N°)) : N° = W}

12 here X° = N1, N2 X3 ---, in

denominations

return &(W);

Runtime: O( nw).

Problem # 5 Solution.

c(N,K) : true iff it is possible to make change for value w

Base cuses C(0,K) = true if  $K \ge 0$  C(0,K) = talse if  $W \ne 0$  C(-0,K) = talse if  $K \ge 0$   $C(0,K) = V \left\{ C(0-W_1,K-1) : X_1 \le W \right\}$ return ((W, K) denomination
rantime: D(WK,M)