

4.) The next step we would do would be to determine where  $c[3,3]$ ,  $c[2,4]$  come from. For  $c[3,3]$  we can see that  $x_3$  does not equal  $y_3$  which comes from the max of  $c[2,3]$  and  $c[3,2]$  which is 2 for  $c[2,2]$ . For  $c[2,4]$  we know that  $x_2$  does not equal  $y_4$  so it will come from the max of  $c[1,4]$  and  $c[2,3]$  and the max is 2 at  $c[2,3]$ .

5.) The next step would be to determine where  $c[2,3]$  came from, we would  $x_2$  and  $y_3$  we can see that these values come from  $c[1,2]$ .

6.) The next step would be to determine where  $c[1,2]$  came from, we would  $x_1$  and  $y_2$  such that these values are not equal, thus it comes from the max of  $c[1,1]$  and  $c[0,2]$  which is 1 or  $c[1,1]$ .

7.) The last step would be to determine where  $c[1,1]$  came from by comparing  $x_1$  and  $y_1$  to each other and these values are equal. Thus  $c[1,1]$  comes from  $c[0,0]$ .

We have completed the backtracking, thus our longest common subsequence is:

CLR

where we include the characters that come from a diagonal.