

12/01/16 CSC 226- Assignment 4

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```
1: print LCS(11cs[], [], X, Y)
   m ← length of Y
   n ← length of X.
```

```
   for i ← -1 to n
     11cs[i][0] ← 0.
```

```
   for j ← -1 to m.
     11cs[0][j] ← 0
```

```
   for i ← -1 to n
     for j ← -1 to m
       if (x[i] == y[j]) {
         11cs[i][j] ← 11cs[i-1][j-1] + 1
       } else if (11cs[i-1][j] ≥ 11cs[i][j-1]) {
         11cs[i][j] ← 11cs[i-1][j]
       } else {
         11cs[i][j] ← 11cs[i][j-1]
       }
     }
   }
```

```
print 11cs[i][j]
```

2. If there is an augmenting path relative to f , then f is not a maximum flow & vice versa. So, if there is no augmenting path relative to f , then there exists a cut whose magnitude $= |f|$. $\therefore f$ is a ~~max~~ max flow and this cut α is a min cut. This shows that $|f| = f(x)$.