6.26

i. The value of $P(i,j)$ will be the max of three possible cases.

(a) match x_i, y_j $= \delta(x_i, y_j) + P(i-1, j-1)$

(b) match $x_i, -$ $= \delta(x_i, -) + P(i-1, j)$

(c) match $y_j, -$ $= \delta(-, y_j) + P(i, j-1)$

ii. $$P(i,j) = \begin{cases} P(i-1, 0) + \delta(x_i, -), & \text{if } j = 0 \\ P(0, j-1) + \delta(-, y_j), & \text{if } i = 0 \\ \max\{ \delta(x_i, y_j) + P(i-1, j-1), \\ \quad \delta(x_i, -) + P(i-1, j), \\ \quad \delta(-, y_j) + P(i, j-1) \}, \end{cases}$$

iii.
```
for i = 1 → n
    P(i, 0) = P(i-1, 0) + δ(x_i, -)
for j = 1 → m
    P(0, j) = P(0, j-1) + δ(-, y_j)
for i = 1 → n
    for j = 1 → m
        P(i, j) = max{ δ(x_i, y_j) + P(i-1, j-1),
                       δ(x_i, -) + P(i-1, j),
                       δ(-, y_j) + P(i, j-1) }
return P(n, m)
```

iv. $O(nm)$