

a b a b c a b c a b a b a b d
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

i=1

→ [0 0 1 2 0]

π:

a b a b d

0 1 2 3 4 5 } index.

$$T[i] = p[j+1]$$

{

i++;

j++;

$$1) T[1] = p[0+1]$$

$$a == a \rightarrow \checkmark \rightarrow i=2 \quad q = [a] \quad T[1] = 0$$

$$p = [a] \rightarrow \checkmark \quad j=1, \quad 0 == 0$$

$$2) T[2] = p[1+1]$$

$$b == b \rightarrow \checkmark \rightarrow i=3 \quad q = [a, b] \quad T[2] = 0$$

$$p = [a, b] \rightarrow \checkmark \quad j=2, \quad 0 == 0$$

$$3) T[3] = p[2+1]$$

$$a == a \rightarrow \checkmark \rightarrow i=4 \quad q = [a, b, a] \quad T[3] = 0$$

$$p = [a, b, a] \rightarrow \checkmark \quad j=3, \quad 0 == 0$$

$$4) T[4] = p[3+1]$$

$$b == b \rightarrow \checkmark \rightarrow i=5$$

$$j=4, \quad q = [a, b, a, b] \quad T[4] = 0$$

$$5) T[5] = p[4+1]$$

$$c == d \rightarrow \times \rightarrow i=5$$

$$j = \pi[j]$$

$$j = 2$$

$$6) T[5] == p[2+1]$$

$$c == a \rightarrow X \rightarrow i = 5$$

$$j = \pi(j)$$

$$j = 0$$

$$7) T[5] == p[0+1]$$

$$c == a \rightarrow X \rightarrow \text{since } j \text{ cannot be documented anymore...!}$$

$$i++;$$

$$i = 6$$

$$j = 0$$

$$8) T[6] == p[0+1]$$

$$a == a \rightarrow \checkmark \rightarrow i = 7$$

$$j = 1$$

$$9) T[7] == p[1+1]$$

$$b == b \rightarrow \checkmark \rightarrow i = 8$$

$$j = 2$$

$$10) T[8] == p[2+1]$$

$$c == a \rightarrow X \rightarrow i = 8$$

$$j = \pi(j)$$

$$j = 0$$

$$11) T[8] == p[0+1]$$

$$c == a \rightarrow X \rightarrow i = 9$$

$$j = 0$$

$$12) \tau[9] == p[0+1]$$

$$a == a \rightarrow \checkmark \rightarrow i' = 10$$

$$j' = 1$$

$$13) \tau[10] == p[1+1]$$

$$b == b \rightarrow \checkmark \rightarrow i' = 11$$

$$j' = 2$$

$$14) \tau[11] == p[2+1]$$

$$a == a \rightarrow \checkmark \rightarrow i' = 12$$

$$j' = 3$$

$$15) \tau[12] == p[3+1]$$

$$b == b \rightarrow \checkmark \rightarrow i' = 13$$

$$j' = 4$$

$$16) \tau[13] == p[4+1]$$

$$a == d \rightarrow \times \rightarrow i' = 13$$

$$j' = \pi[j]$$

$$j' = 2$$

$$17) \tau[13] == p[2+1]$$

$$a == a \rightarrow \checkmark \rightarrow i' = 14$$

$$j' = 3$$

$$18) \tau[14] == p[3+1]$$

$$b == b \rightarrow \checkmark \rightarrow i' = 15$$

$$j' = 4$$

$$19) \tau[15] == p[4+1]$$

$$d == d \rightarrow \checkmark \rightarrow i' = 16$$

Matching index = i - length (p)

$$= 16 - 5$$

$$= \underline{\underline{411}}$$