DFA Simulation
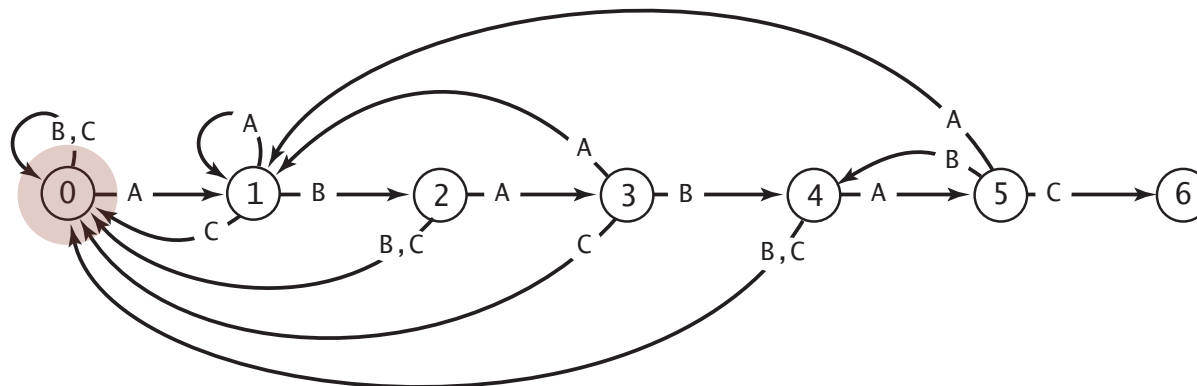
B C B A A B A C A A B A B A C A A

↑

```
             j   0   1   2   3   4   5
   pat.charAt(j)  A   B   A   B   A   C
               |A  1   1   3   1   5   1
    dfa[][j]   |B  0   2   0   4   0   4
               |C  0   0   0   0   0   6
```
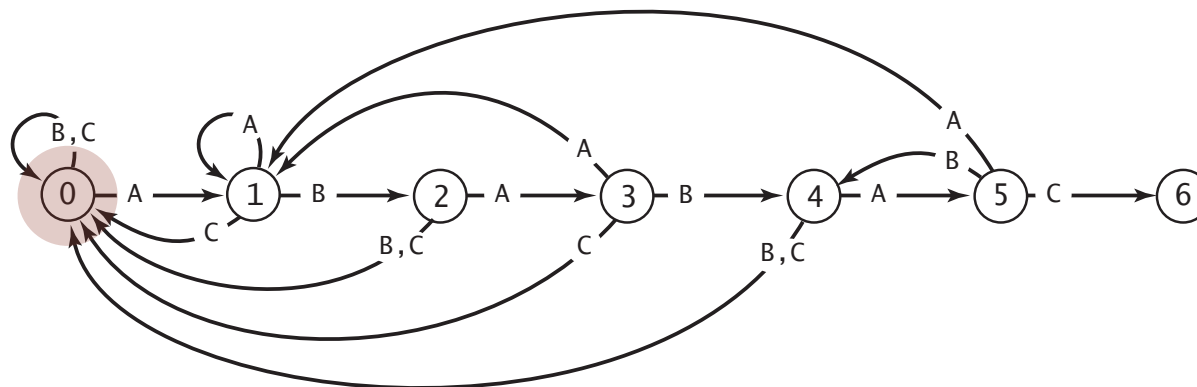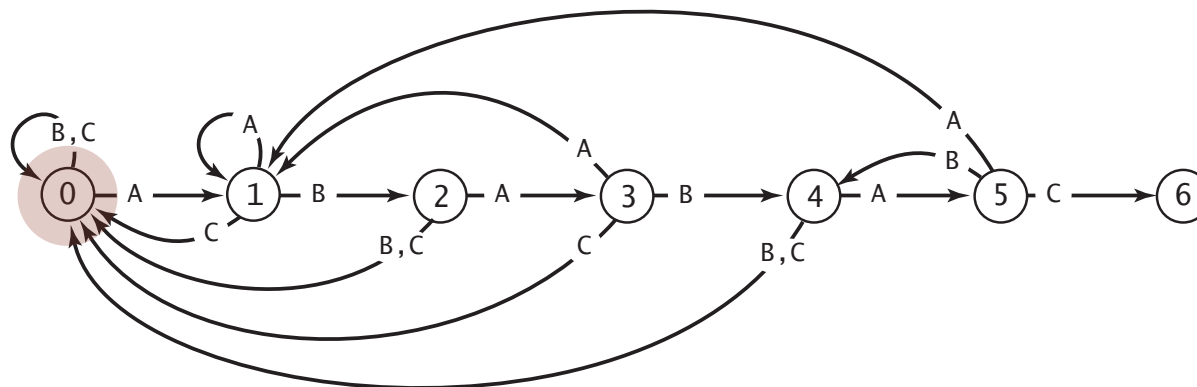

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A A B A B A C A A

$\uparrow$

j	0	1	2	3	4	5
pat.charAt(j)	A	B	A	B	A	C
dfa[][j] A	1	1	3	1	5	1
B	0	2	0	4	0	4
C	0	0	0	0	0	6

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A A B A B A C A A

↑

j	0	1	2	3	4	5
pat.charAt(j)	A	B	A	B	A	C
dfa[][j] A	1	1	3	1	5	1
B	0	2	0	4	0	4
C	0	0	0	0	0	6

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A A B A B A C A A

↑

j	0	1	2	3	4	5
pat.charAt(j)	A	B	A	B	A	C
dfa[][j] A	1	1	3	1	5	1
B	0	2	0	4	0	4
C	0	0	0	0	0	6

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A A B A B A C A A

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A **A** B A C A A B A B A C A A

	j	0	1	2	3	4	5
pat.charAt(j)		A	B	A	B	A	C
dfa[][j]	A	1	1	3	1	5	1
	B	0	2	0	4	0	4
	C	0	0	0	0	0	6

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A A B A B A C A A

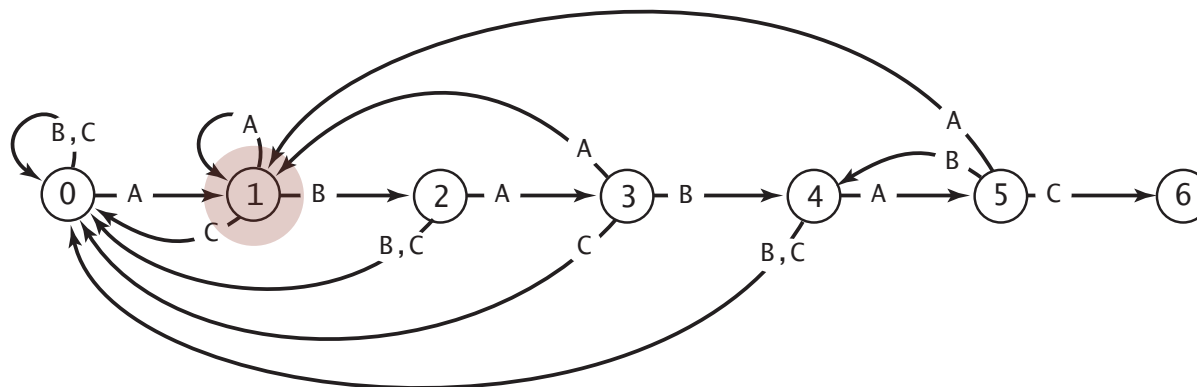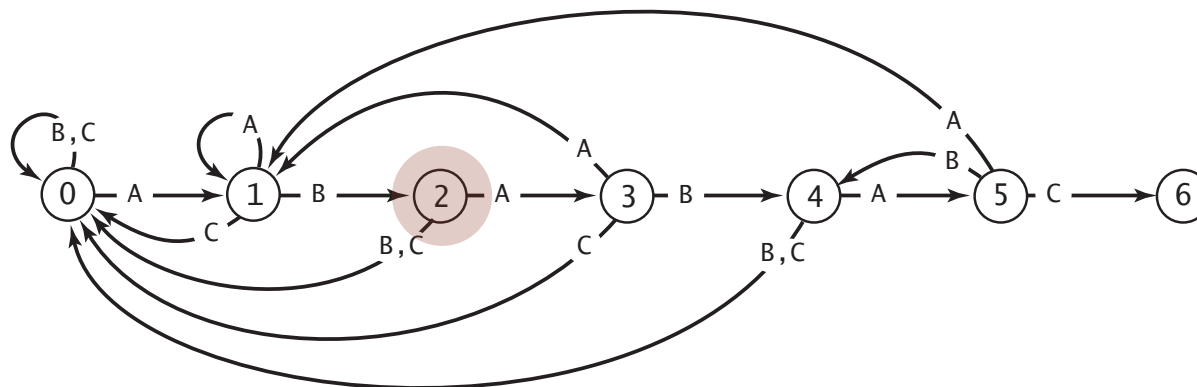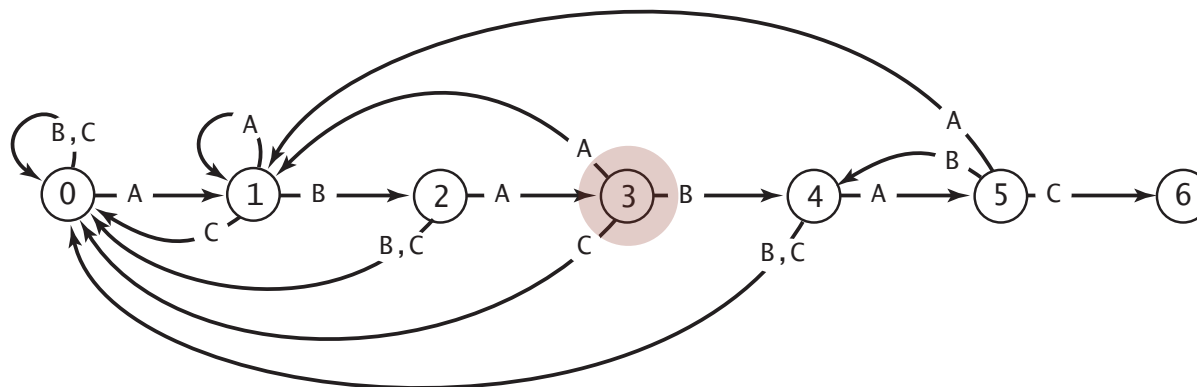| j	0	1	2	3	4	5
pat.charAt(j)	A	B	A	B	A	C
dfa[][j] A	1	1	3	1	5	1
B	0	2	0	4	0	4
C	0	0	0	0	0	6

Trace of KMP substring search (DFA simulation) for A B A B A C

DFA simulation

B C B A A B A C A A B A B A C A A

↑

	j	0	1	2	3	4	5
pat.charAt(j)		A	B	A	B	A	C
dfa[][j]	A	1	1	3	1	5	1
	B	0	2	0	4	0	4
	C	0	0	0	0	0	6

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A A B A B A C A A

j	0	1	2	3	4	5
pat.charAt(j)	A	B	A	B	A	C
dfa[][j] A	1	1	3	1	5	1
B	0	2	0	4	0	4
C	0	0	0	0	0	6

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A A B A B A C A A

↑

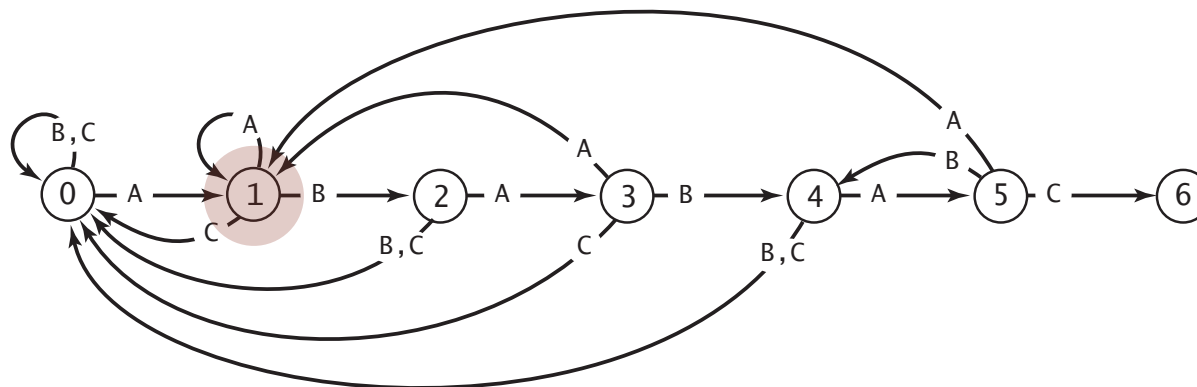| j	0	1	2	3	4	5
pat.charAt(j)	A	B	A	B	A	C
dfa[][j] A	1	1	3	1	5	1
B	0	2	0	4	0	4
C	0	0	0	0	0	6

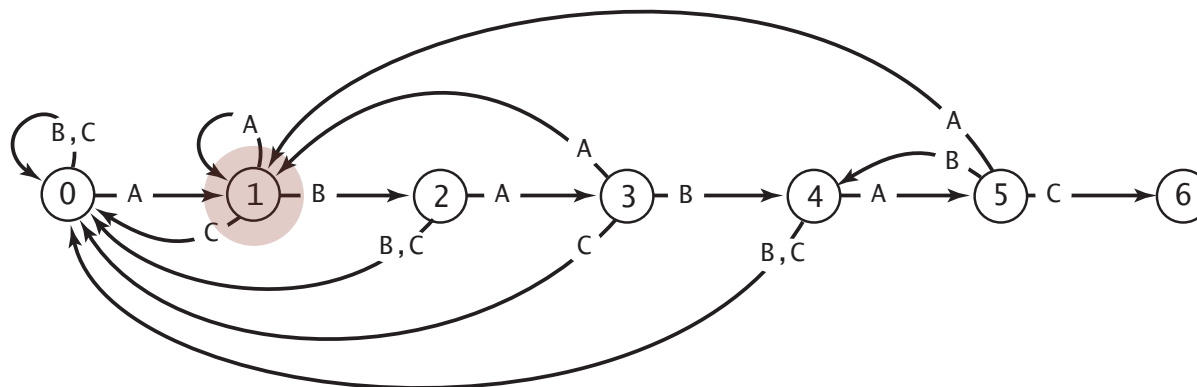**Trace of KMP substring search (DFA simulation) for A B A B A C**

DFA simulation

B C B A A B A C A A B A B A C A A

j	0	1	2	3	4	5
pat.charAt(j)	A	B	A	B	A	C
dfa[][j] A	1	1	3	1	5	1
B	0	2	0	4	0	4
C	0	0	0	0	0	6

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A **A B** A B A C A A

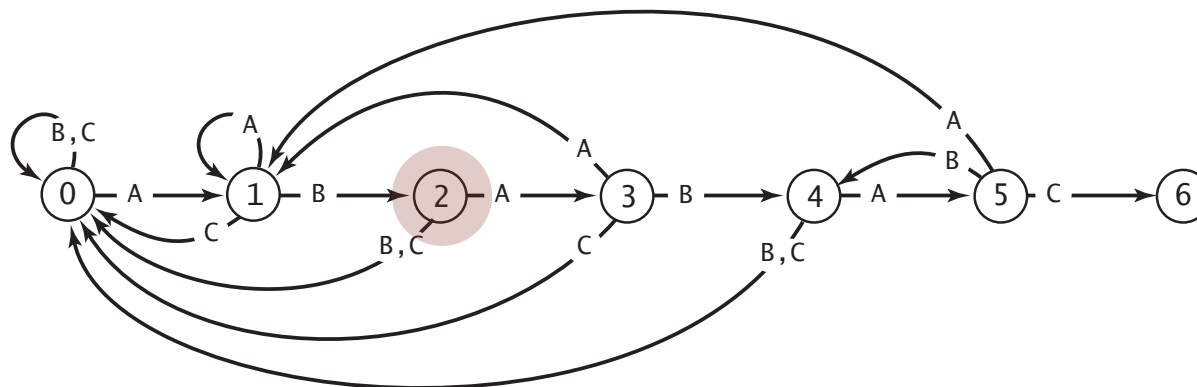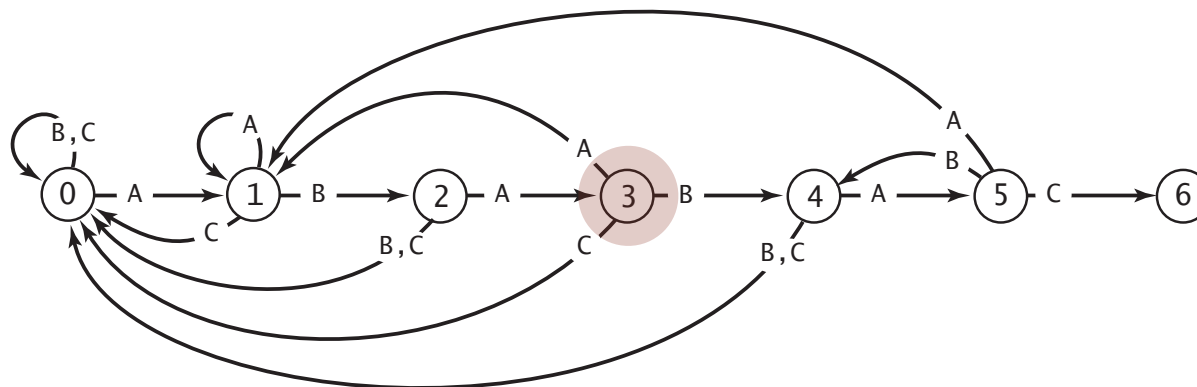|	j	0	1	2	3	4	5
pat.charAt(j)		A	B	A	B	A	C
	A	1	1	3	1	5	1
dfa[][j]	B	0	2	0	4	0	4
	C	0	0	0	0	0	6

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A A B A B A C A A


```
              j    0    1    2    3    4    5
    pat.charAt(j)  A    B    A    B    A    C
                 A 1    1    3    1    5    1
       dfa[][j] B 0    2    0    4    0    4
                 C 0    0    0    0    0    6
```
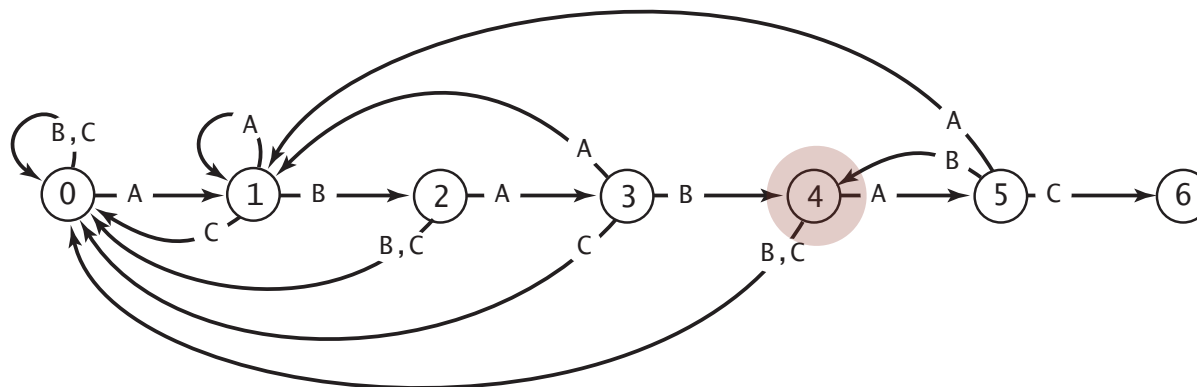

Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A A B A B A C A A

↑

```
              j    0    1    2    3    4    5
     pat.charAt(j)  A    B    A    B    A    C
                 A  1    1    3    1    5    1
       dfa[][j]  B  0    2    0    4    0    4
                 C  0    0    0    0    0    6
```


Trace of KMP substring search (DFA simulation) for A B A B A C

B C B A A B A C A A B A B A C A A

```
                    j    0    1    2    3    4    5
          pat.charAt(j)  A    B    A    B    A    C
                      │A  1    1    3    1    5    1
          dfa[][j]    │B  0    2    0    4    0    4
                      │C  0    0    0    0    0    6
```
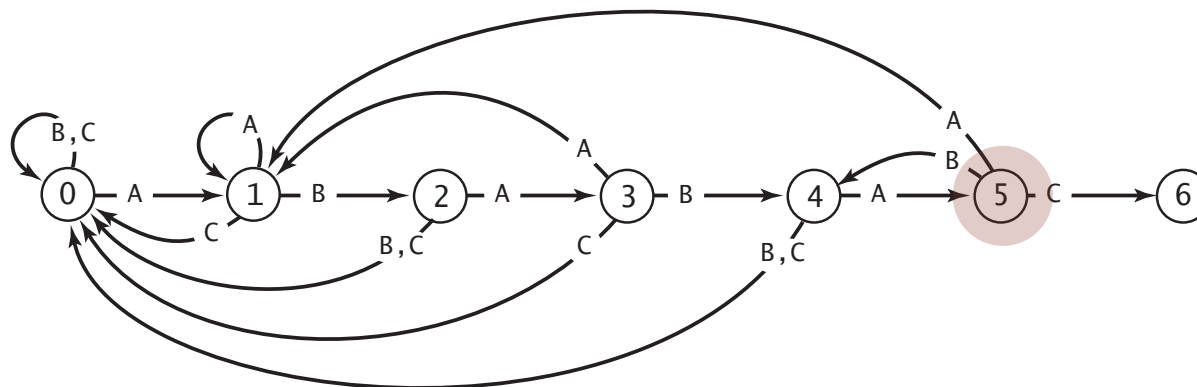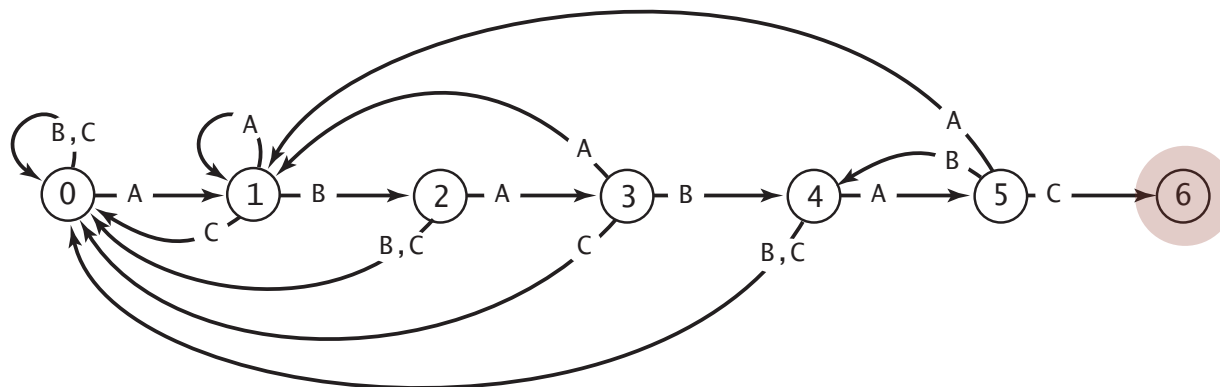

Trace of KMP substring search (DFA simulation) for A B A B A C

DFA simulation

B C B A A B A C A A B A B A C A A

j	0	1	2	3	4	5
pat.charAt(j)	A	B	A	B	A	C
dfa[][j] A	1	1	3	1	5	1
B	0	2	0	4	0	4
C	0	0	0	0	0	6

Trace of KMP substring search (DFA simulation) for A B A B A C