Lexical Analysis

Lecture 3

Exercise

Question?

Consider the string **abbbaacc** . Which of the following lexical specifications produces the tokenization: ab/bb/a/acc

Choose all that apply

- c*
b+
ab
ac*
- a(b + c*)
b+
- ab
b+
ac*
- b+
ab*
ac*

Answer!

Consider the string **abbbaacc** . Which of the following lexical specifications produces the tokenization: ab/bb/a/acc

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- c*
  b+
  ab
  ac*
- a(b + c*)
  b+
- ab
  b+
  ac*
- b+
  ab*
  ac*

Question?

Using the lexical specification below, how is the string "**dictatorial**" tokenized?

Choose all that apply

dict (1)
dictator (2)
[a-z]* (3)
dictatorial (4)

- 1, 3
- 3
- 4
- 2, 3

Answer!

Using the lexical specification below, how is the string "**dictatorial**" tokenized?

Choose all that apply

dict (1)
dictator (2)
[a-z]* (3)
dictatorial (4)

- 1, 3
- 3
- 4
- 2, 3

Question?

Given the following lexical specification:

a(ba)*
b*(ab)*
abd
d+

Which of the following statements is true?

Choose all that apply

- babad will be tokenized as: bab/a/d
- ababdddd will be tokenized as: abab/dddd
- dddabbabab will be tokenized as: ddd/a/bbabab
- ababddababa will be tokenized as: ab/abd/d/ababa

Answer!

Given the following lexical specification:

a(ba)*
b*(ab)*
abd
d+

Which of the following statements is true?

Choose all that apply

- ○ babad will be tokenized as: bab/a/d
- ○ ababdddd will be tokenized as: abab/dddd
- ○ dddabbabab will be tokenized as: ddd/a/bbabab
- ○ ababddababa will be tokenized as: ab/abd/d/ababa

Question?

Given the following lexical specification:

(00)*
01+
10+

Which strings are NOT successfully processed by this specification?

Choose all that apply

- ○ 011110
- ○ 01100100
- ○ 01100110
- ○ 0001101

Answer!

Given the following lexical specification:

(00)*
01+
10+

Which strings are NOT successfully processed by this specification?

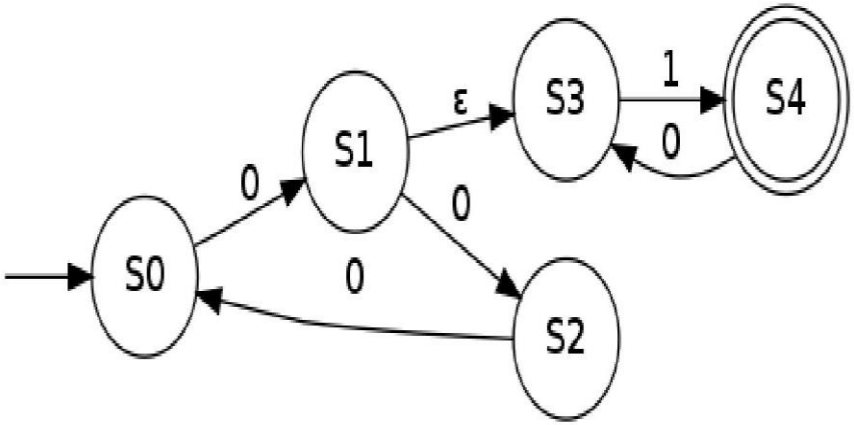
Choose all that apply

- [x] 011110
- [ ] 01100100
- [x] 01100110
- [ ] 0001101

Question?

Which of the following regular expressions generate the same language as the one recognized by this NFA?

Choose all that apply

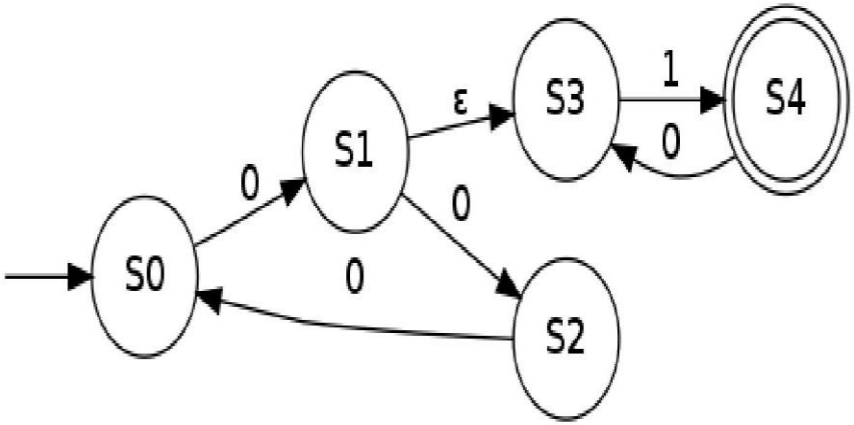


- (000)*(01)+
- 0(000)*1(01)*
- (000)*(10)+
- 0(00)*(10)*
- 0(000)*(01)*

Answer!

Which of the following regular expressions generate the same language as the one recognized by this NFA?

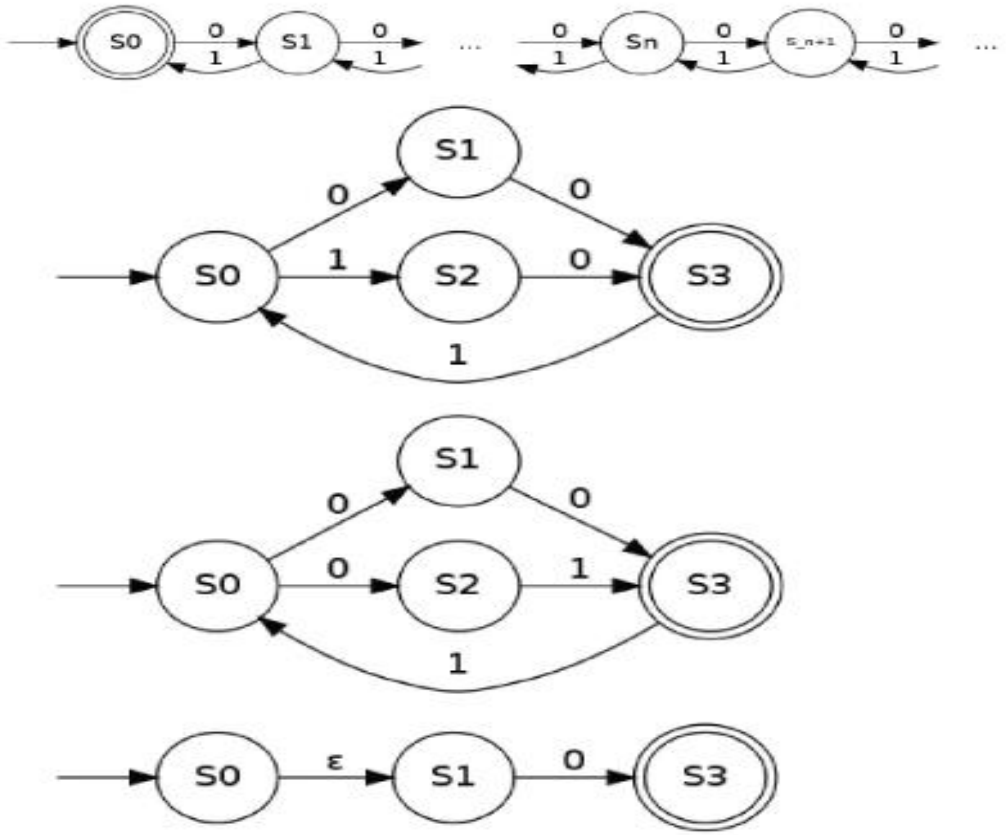
Choose all that apply



- (000)*(01)+
- 0(000)*1(01)*
- (000)*(10)+
- 0(00)*(10)*
- 0(000)*(01)*

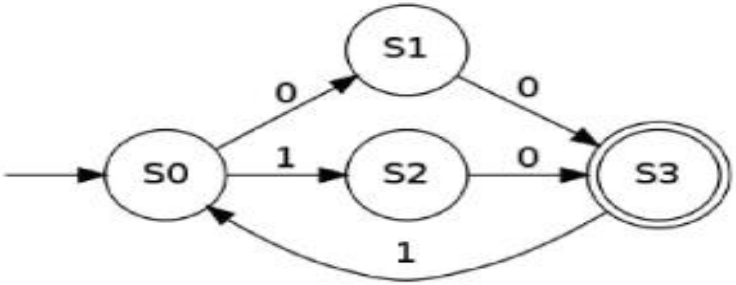
Question?

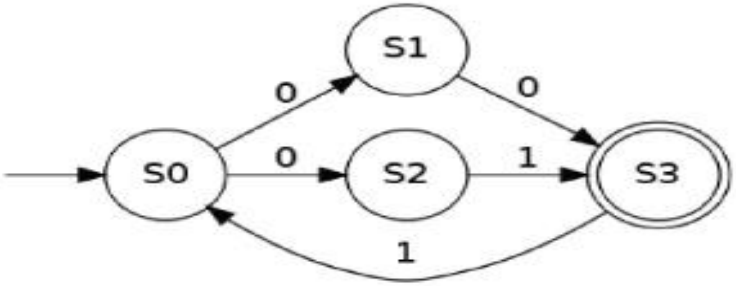
Which of the following automata are DFA? Choose all that apply

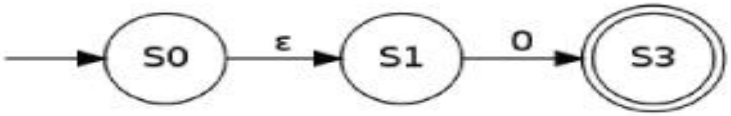


Answer!

Which of the following automata are DFA? Choose all that apply

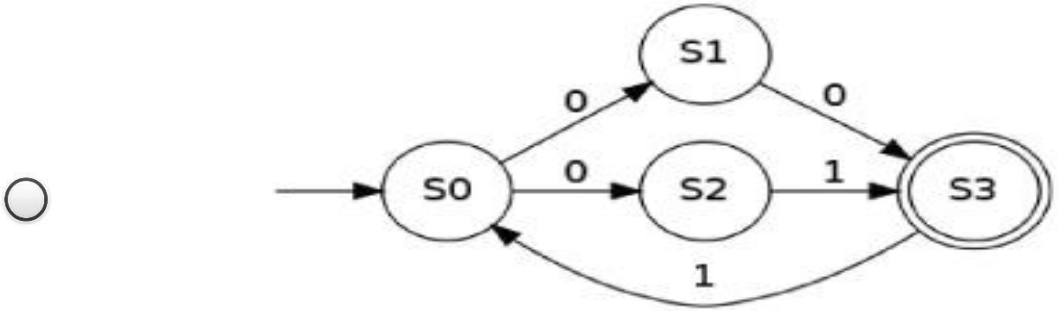


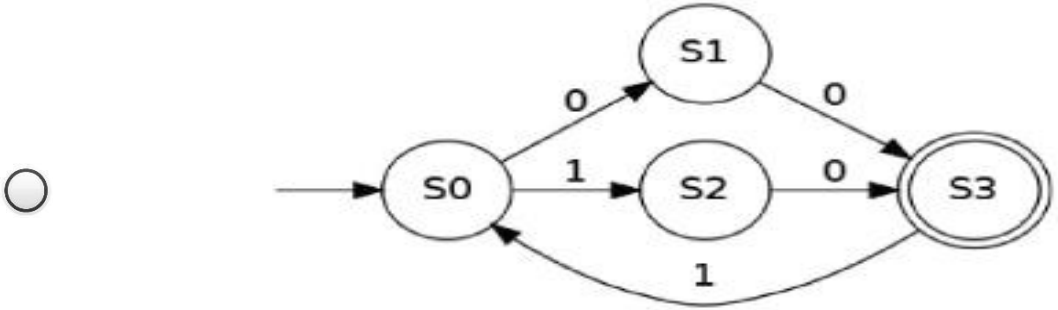


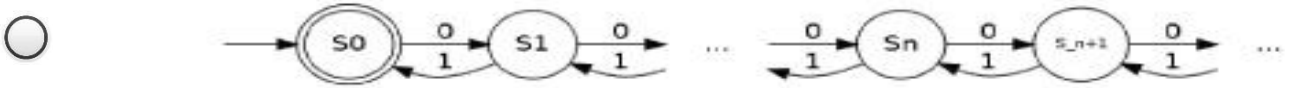


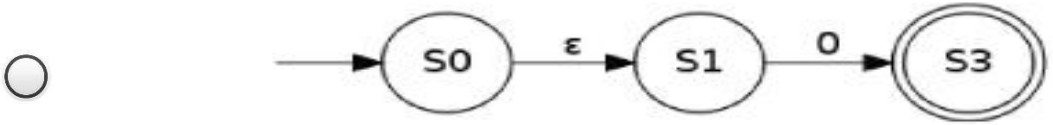
Question?

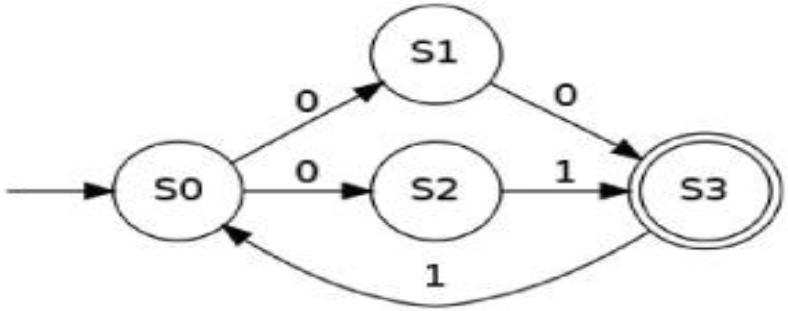
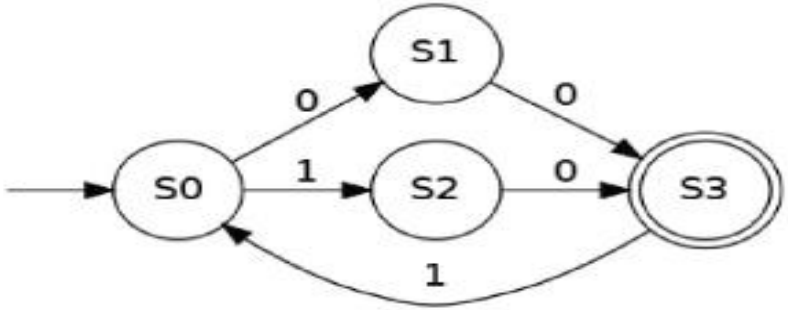
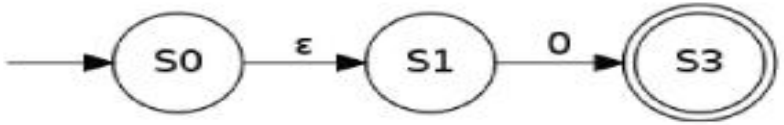
Which of the following automata are NFA? Choose all that apply









Answer!

Which of the following automata are NFA? Choose all that apply