Quiz 8

Due Oct 16 at 11:59pm **Points** 6 **Questions** 6
Available Oct 13 at 11:59pm - Nov 21 at 11:59pm **Time Limit** 30 Minutes

Instructions

Quiz 8

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	21 minutes	5 out of 6

Score for this quiz: **5** out of 6
Submitted Oct 16 at 7:23pm
This attempt took 21 minutes.

Question 1 — 0 / 1 pts

You cannot build a DFA to recognize $a^{500}b^{1000} \cup a^{1000}$

ou Answered
- (●) True

orrect Answer
- ( ) False

Question 2 — 1 / 1 pts

If M = (Q, Σ, δ, q0, F) is an automata and q0 $\notin$ F, Then we can conclude that $\lambda \notin$ L(M).

This statement is true for the following:

```
(I) If M is either a DFA or a NFA
(II) If M is a DFA only
(III) If M is a NFA only
(IV) None of the above
```

- ○ I
- Correct! ◉ II
- ○ III
- ○ IV

Question 3

1 / 1 pts

Regular languages can be expressed by regular expressions. We had pointed out that difference operator (-) is not a valid operator in regular expressions. Hence, Regular languages are not closed under the difference operator.

- ○ True
- Correct! ◉ False

Question 4

1 / 1 pts

If L is a finite language (i.e., a language with a finite number of strings), then L must be a regular language

- Correct! ◉ True

False

Question 5

1 / 1 pts

Suppose that I have two DFAs M1 and M2 with 7 states and 6 states respectively. Assume that M1 has 3 final states and M2 has 4 final states. If I build a product DFA for the intersections of the two languages, how many final states will the resulting DFA have?

13

16

9

3

Correct!

12

Question 6

1 / 1 pts

If L is regular then LL^R is regular

Correct!

True

False

Quiz Score: **5** out of 6