

Problem Solving in Automata, Languages, and Complexity

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Errata

Page 3, line 19: “in A ” should read “of A ”

Page 4, Figure 1.1: “Substraction” should read “Subtraction”

Page 39, line 11 from the bottom: “acctping” should read “accepting”

Page 42, line 12: “DFA” should read “NFA”

Page 46, line 11: “Sigma” should read “ Σ ”

Page 47, Figure 2.29(b): The loop from state $\{0, 1, 3, 4, 5\}$ to itself should have a label 0.

Page 53, line 5: “the fourth from the left symbols” should read “the fourth symbol from the left”

Page 59, line –6: “mehtod” should read “method”

Page 60, line 6 from the bottom: The formula for $f(L)$ should read

$$f(L) = 0(0 + 1)^*1 + (0 + 1)^*10(0 + 1)^*.$$

Page 62, line 14: “product DFA” should read “product NFA”

Page 76, Figure 2.49: States $\{2, 3\}$ and $\{5\}$ should be final states (double circled).

Page 79, line 10: “Index(L)” should read “Index(R_L)”

Page 82, Figure 2.55: The caption should read “The path $(q_0, \dots, q_1, \dots, q_i, \dots, q_i, \dots, q_2, \dots, q_f)$.”

Page 88, line –12: “ $a_1a_2 \dots a_n \in A$ ” should read “ $a_1a_2 \dots a_{2n} \in A$ ”

Page 99, lines 13 and 14 from the bottom: Both occurrences of “ $\#a(x)$ ” should be changed to “ $\#_a(x)$ ”

Page 101, line 2: “ $\#_b(x) = 2\#_a(x) + 3$ ” should read “ $\#_b(x) = 2\#_a(x) - 3$ ”

Page 106, line 9: “ $R =$ ” should read “ $R' =$ ”

Page 115, line 5: The rule (i) should read “The operators $*$ and \div have higher preference over $+$ and $-$.”

Page 133, line –4: “*Proof*” should read “*Solution*”

Page 163, Figure 4.2: The loop from state s to itself should be removed.

Page 211, line 4: “ $i = 1$ ” should read “ $i := 1$ ”

Page 212, line 6 from the bottom: “ $f(n_1, \dots, n_k)$ ” should read “ $\tau_1(n_1, \dots, n_k)$ ”

Page 228, line 14: Add, at the end of the paragraph, “We write ϕ_n to denote ϕ_n^1 for $n \geq 0$.”

Page 229, lines 15 and 16 from the bottom: The whole paragraph should read “If it is not legal, the machine U halts in a state other than h (i.e., it rejects the input).”

Page 233, line 8: “Example 4.37” should read “Example 4.39”

Page 247, line 22: “ f ” should read “ g ”

Page 247, line 12 from the bottom: “recurisve” should read “recursive”

Page 247, lines 8 and 9 from the bottom: Both occurrences of s_A should be changed to σ_A , and both s_B should be changed to σ_B .

Page 249, line 11: “ $read(y_m);$ ” should read “ $read(y_n);$ ”

Page 270, line 10: “(5.2)” should read “(5.3)”

Page 270, line 12: “(5.3)” should read “(5.2)”

Page 322, line 8: “accepted by a 2-stack PDA” should read “accepted by a 2-stack PDA with the linear size-bound on its stack”

Page 333, line 8: “ $n \times n$ ” should read “ $n \times m$ ”

Page 344, line 22: “ $A \cup B \cup c$ ” should read $A \cup B \cup C$