

Automata Theory: Solutions 9

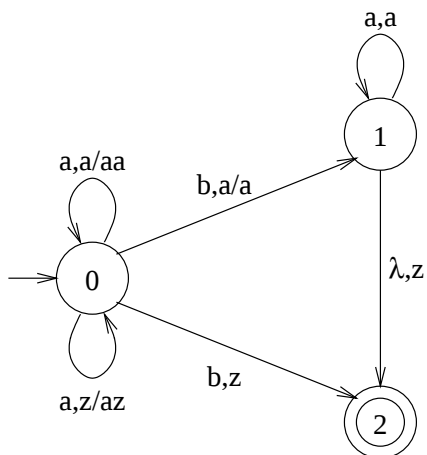
					X							
					X	X		X	X		X	
number of					X	X		X	X	X	X	X
homeworks					X	X	X	X	X	X	X	X
					X	X	X	X	X	X	X	X
				X	X	X	X	X	X	X	X	X
	X	X		X	X	X	X	X	X	X	X	X
	X	X	X	X	X	X	X	X	X	X	X	X

	1	2	3	4	5	6	7	8	9	10	11	12
	grades											

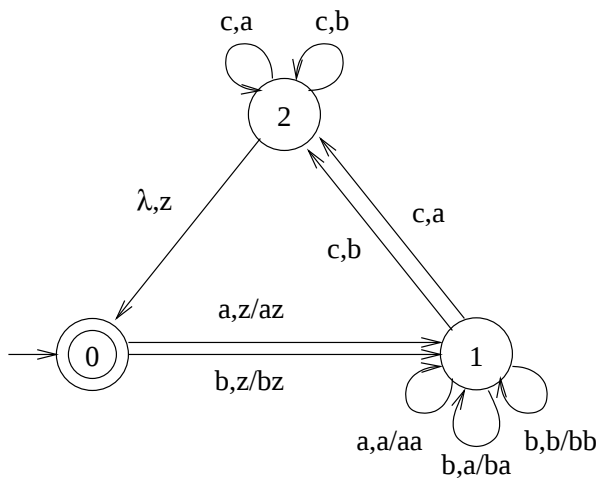
Problem 1

Construct deterministic PDAs for the following languages:

(a) $\{a^n b a^n : n \geq 0\}$



(b) $\{a^n b^m c^{n+m} : n \geq 0, m \geq 0\}$



Problem 2

Construct a nondeterministic PDA for the following language on the alphabet $\Sigma = \{a, b\}$:

$$\{w : w = w^R\}$$

