Solution to Problem 18

Task. As described in the corresponding lecture, every grammar obtained from a finite automaton is LL(1). For the grammar from Homework 8, build the corresponding table.

Solution. This grammar has two variables N and W, three terminal symbols 1, a, and ?, and the following rules:

1. $N \to 1N$
2. $N \to aW$
3. $N \to ?W$
4. $W \to 1W$
5. $W \to aW$
6. $W \to ?W$
7. $N \to \varepsilon$

So, the corresponding table has the following form:

	1	a	?	eol
N	1	2	3	7
W	4	5	6	–