

399 (Backus-Naur Form) Backus-Naur Form is a grammatical formalism in which grammatical rules are written as in the following example.

$$\langle exp \rangle ::= \langle exp \rangle + \langle exp \rangle \mid \langle exp \rangle \times \langle exp \rangle \mid 0 \mid 1$$

In our formalism, it would be written

$$exp = exp; "+"; exp, exp; "x"; exp, "0", "1"$$

In a similar fashion, write axioms to define each of the following.

- (a) palindromes: texts that read the same forward and backward. Use a two-symbol alphabet.
- (b) palindromes of odd length.
- (c) all texts consisting of "a"s followed by the same number of "b"s.
- (d) all texts consisting of "a"s followed by at least as many "b"s.

no solution given