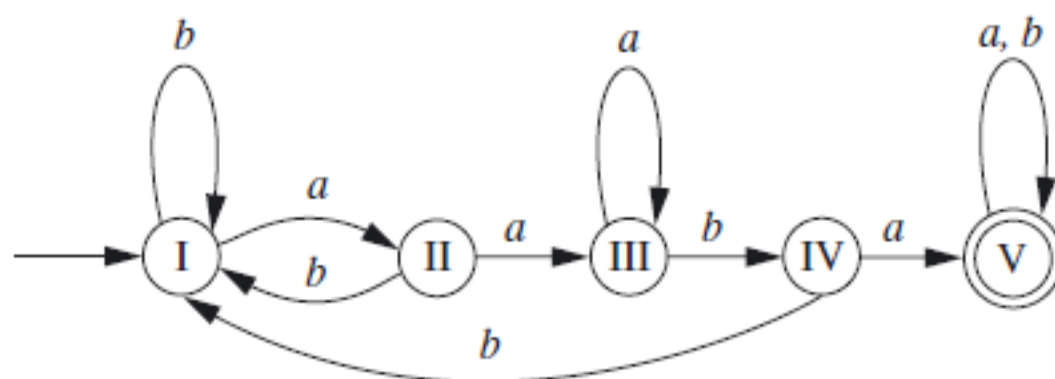


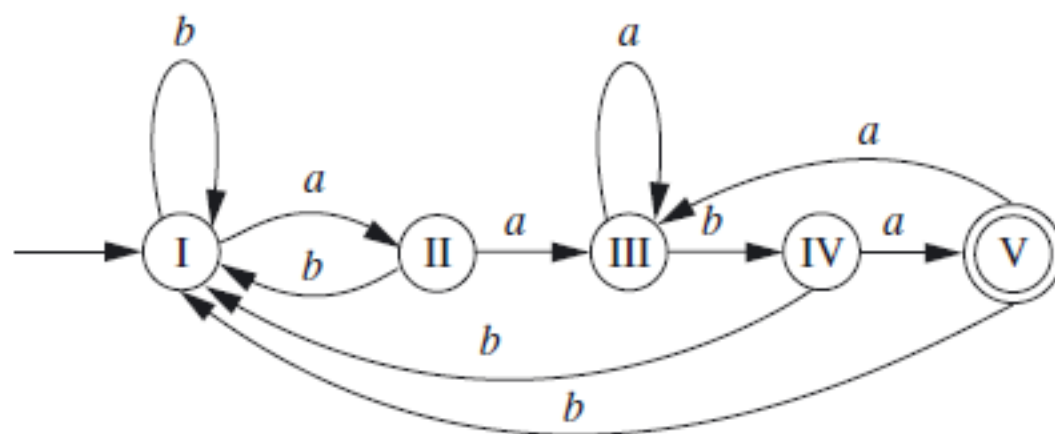
Az informatika számítástudományi alapjai gyakorlat

2. feladatsor

2.2. For each of the FAs pictured in Fig. 2.43, give a simple verbal description of the language it accepts.

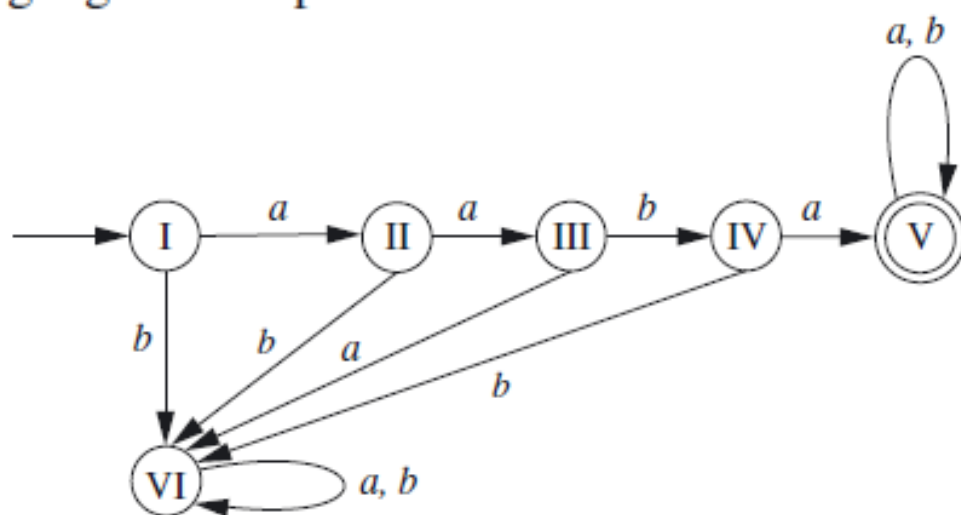


(a)

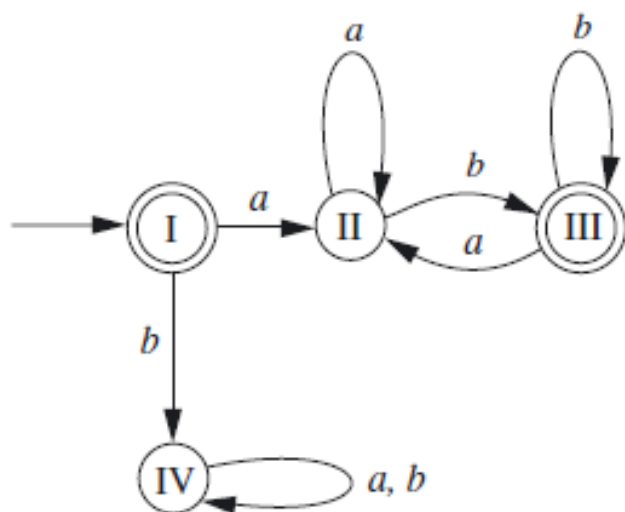


(b)

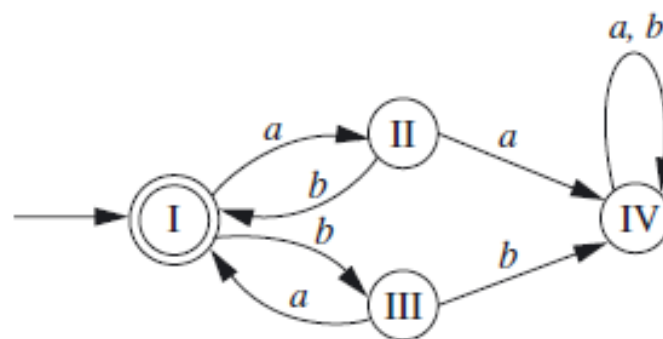
2.2. For each of the FAs pictured in Fig. 2.43, give a simple verbal description of the language it accepts.



(c)



(d)



(e)

2.1. In each part below, draw an FA accepting the indicated language over $\{a, b\}$.

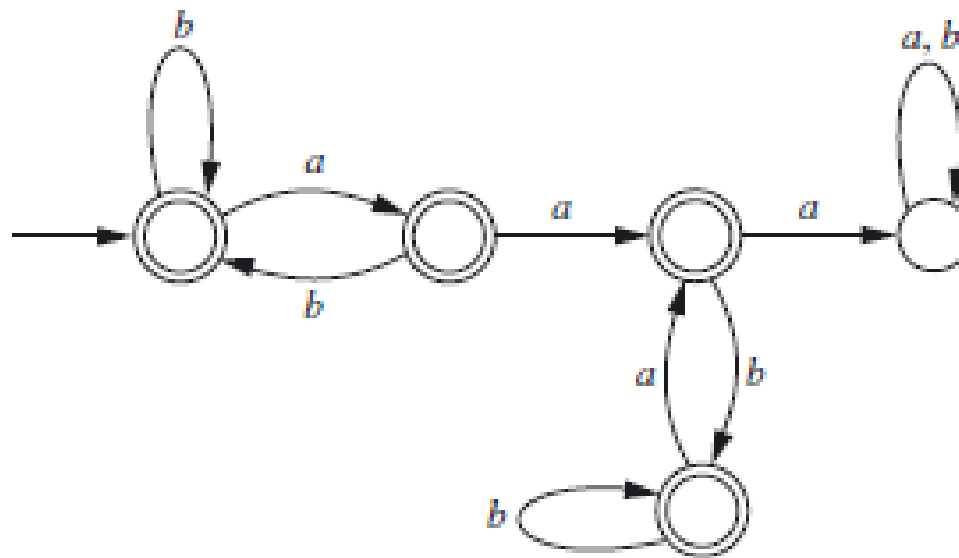
- a. The language of all strings containing exactly two a 's.
- b. The language of all strings containing at least two a 's.
- c. The language of all strings that do not end with ab .
- d. ~~The language of all strings that begin or end with aa or bb .~~
- e. The language of all strings not containing the substring aa .
- f. The language of all strings in which the number of a 's is even.
- g. The language of all strings in which both the number of a 's and the number of b 's are even.
- h. The language of all strings containing no more than one occurrence of the string aa . (The string aaa contains two occurrences of aa .)
- i. The language of all strings in which every a (if there are any) is followed immediately by bb .
- j. The language of all strings containing both bb and aba as substrings.
- k. ~~The language of all strings containing both aba and bab as substrings.~~

2.12. For each of the following languages, draw an FA accepting it.

- a. $\{a, b\}^* \{a\}$
- b. $\{bb, ba\}^*$
- c. $\{a, b\}^* \{b, aa\} \{a, b\}^*$
- d. $\{bbb, baa\}^* \{a\}$
- e. $\{a\} \cup \{b\} \{a\}^* \cup \{a\} \{b\}^* \{a\}$
- f. $\{a, b\}^* \{ab, bba\}$
- g. $\{b, bba\}^* \{a\}$
- h. $\{aba, aa\}^* \{ba\}^*$

Két megoldás:

2.1(h).



2.12(h).

