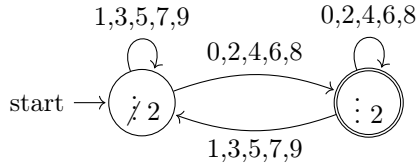
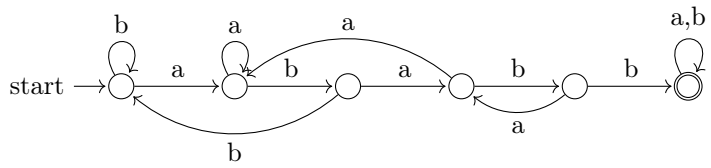
2

$L = \{b, ab\},\ R = \{\epsilon, a\}$
$|L(R)^r| = |\{b, ab, ba, aba\}| = 4$
$|L^r R| = |\{b, ba, baa\}| = 3$

3



4

$L = \{\ \alpha abaabb\beta \mid \alpha, \beta \in \{a, b\}^*\ \}$