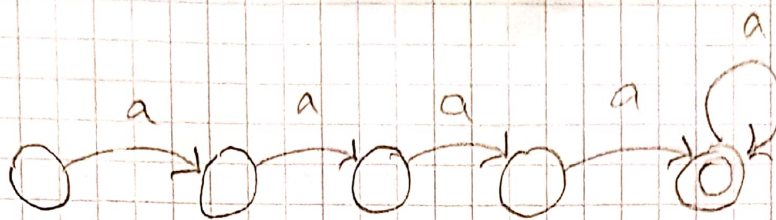


1A



$a, 2 \rightarrow 3$

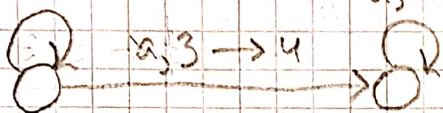
$a, 1 \rightarrow 2$

$a, \epsilon \rightarrow 1$

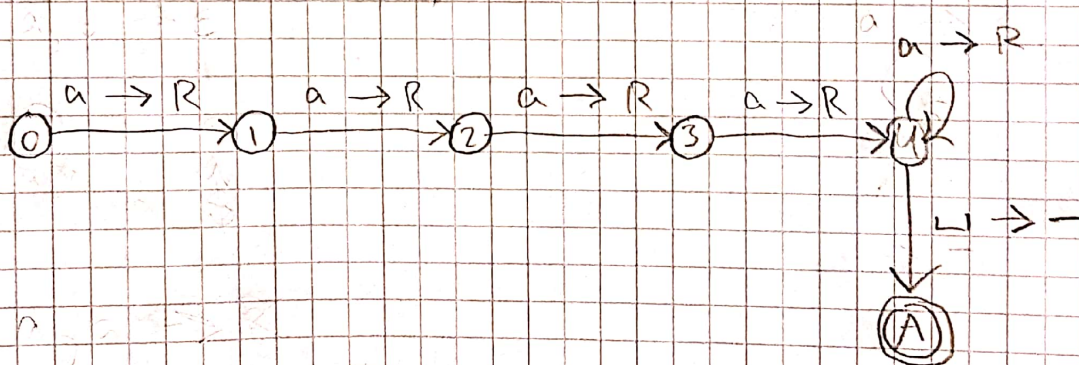
$a, \epsilon \rightarrow \epsilon$

$a, 4 \rightarrow \epsilon$

1B



2A



2B

$$O(n+1) = O(n)$$

$$\textcircled{3A} \quad \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot 1 = \frac{1}{16}$$

$$aaaa = \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} = 2^{-3}$$

$$aaaaa = \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} = 2^{-4}$$

$$aaaaaa = \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} = 2^{-5}$$

$$a^n = 2^{-n}$$