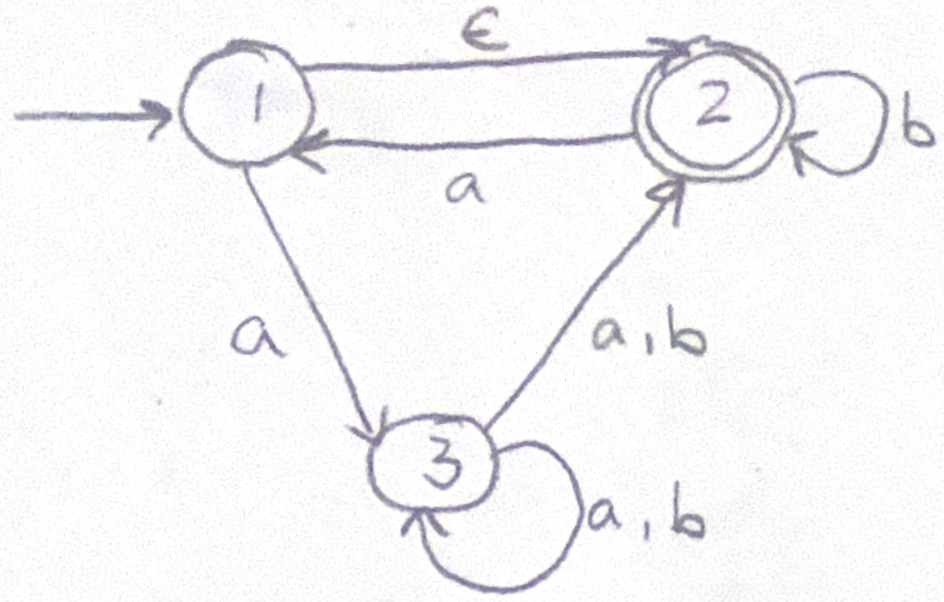
(4)

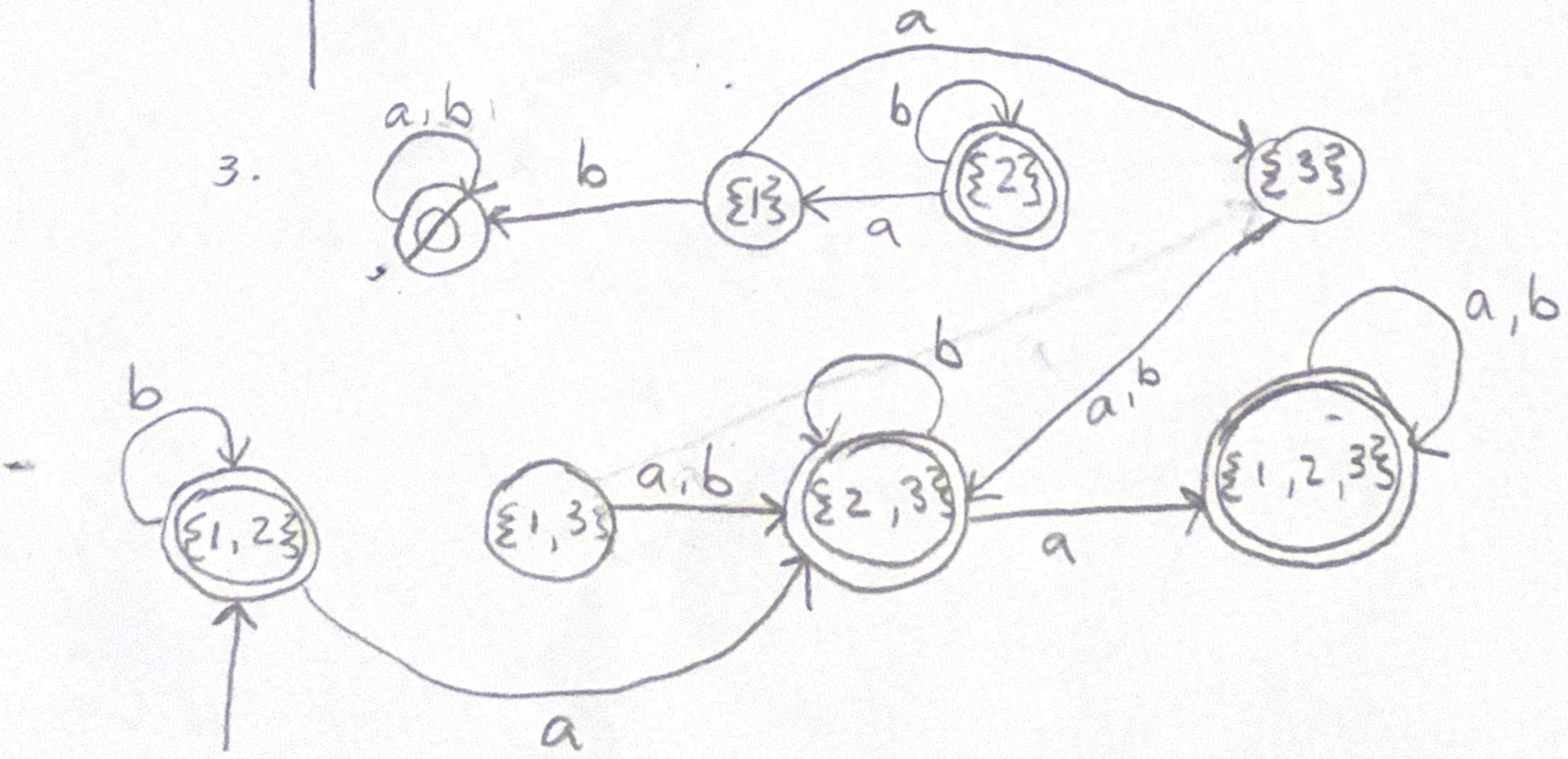
NFA:



$\delta : S \times \Sigma_\varepsilon \to \mathcal{P}(S)$:

	a	b	ε
1	{3}	∅	{2}
2	{1}	{2}	∅
3	{2,3}	{2,3}	∅

DFA: 1. $S' = \mathcal{P}(S) = \{\emptyset, \{1\}, \{2\}, \{3\}, \{1,2\}, \{1,3\}, \{2,3\}, \{1,2,3\}\}$

2.

3.