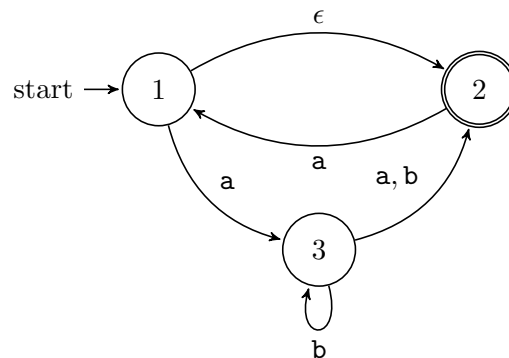## Problem Set 1, Question 3 – Correction

Use the construction given in class to convert the following NFA to a DFA. Give a transition table and a transition diagram for the resulting DFA.

We start with the transition table for the given NFA

	a	b	ϵ
1	$\{3\}$	$\emptyset$	$\{2\}$
2	$\{1\}$	$\emptyset$	$\emptyset$
3	$\{2\}$	$\{2,3\}$	$\emptyset$

We then get a DFA with the following transition table (initial state 12, final states 12 and 23) (5)

	a	b
12	123	$\emptyset$
123	123	23
23	12	23
$\emptyset$	$\emptyset$	$\emptyset$

This is the transition diagram (5)