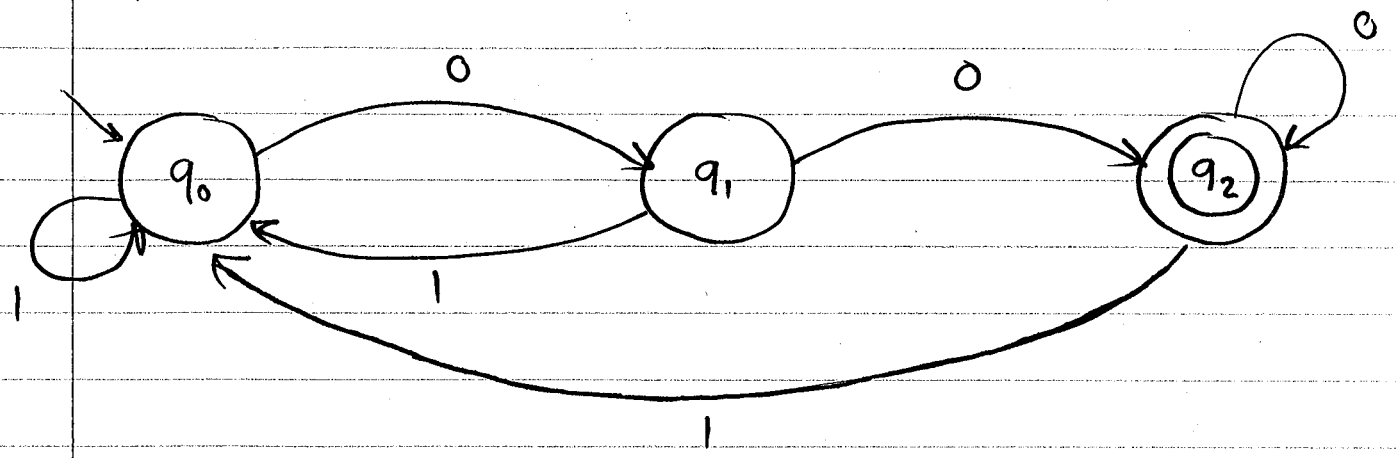
Some examples of DFA's and their corresponding NFA's

$L_1 = \{ w \mid w \text{ ends with } 00 \}$



1) $S = \{q_0, q_1, q_2\}$

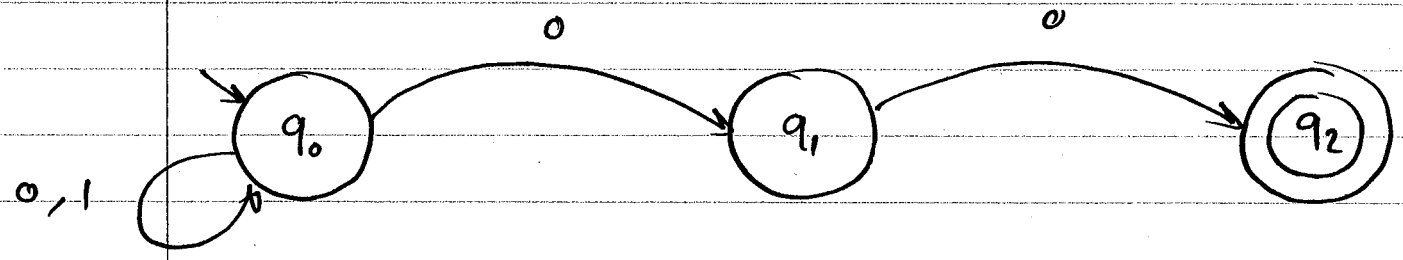
2) $\Sigma = \{0, 1\}$

3) q_0

4) $F = \{q_2\}$

5)

	0	1
q_0	q_1	q_0
q_1	q_2	q_0
q_2	q_2	q_0



1) $S = \{q_0, q_1, q_2\}$

2) $\Sigma = \{0, 1\}$

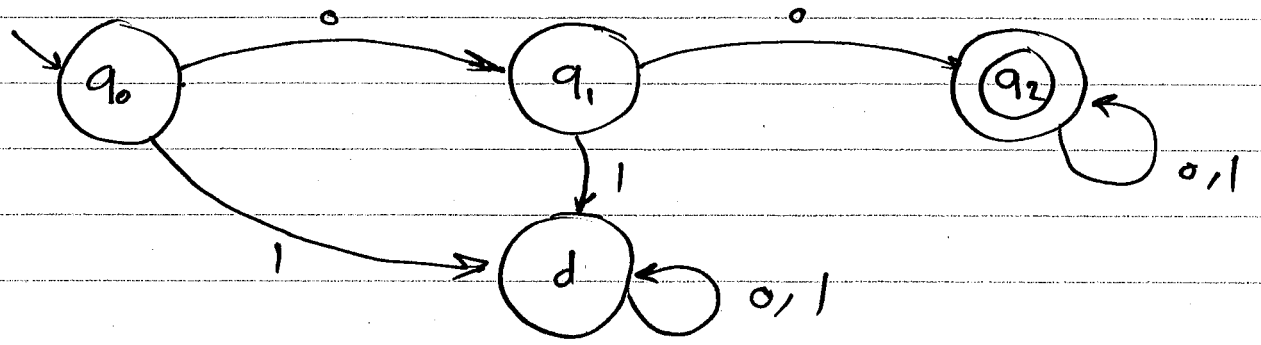
3) q_0

4) $F = \{q_2\}$

5)

	0	1	ε
q_0	$\{q_0, q_1\}$	$\{q_0\}$	$\{\}$
q_1	$\{q_2\}$	Φ	Φ
q_2	Φ	Φ	Φ

$L_2 = \{ \omega \mid \omega \text{ starts with } 00 \}$



1) $S = \{q_0, q_1, q_2, d\}$

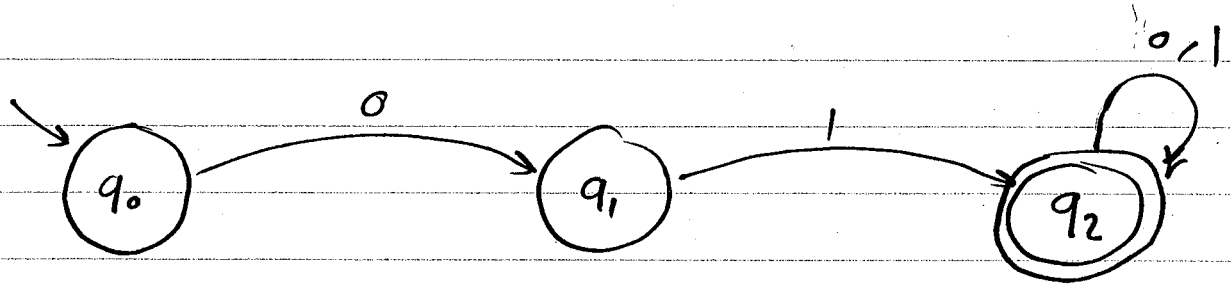
2) $\Sigma = \{0, 1\}$

3) q_0

4) $F = \{q_2\}$

5)

	0	1
q_0	q_1	d
q_1	q_2	d
q_2	q_2	q_2
d	d	d



1) $S = \{q_0, q_1, q_2\}$

2) $\Sigma = \{0, 1\}$

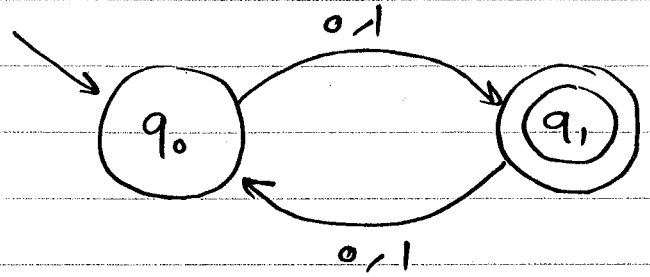
3) q_0

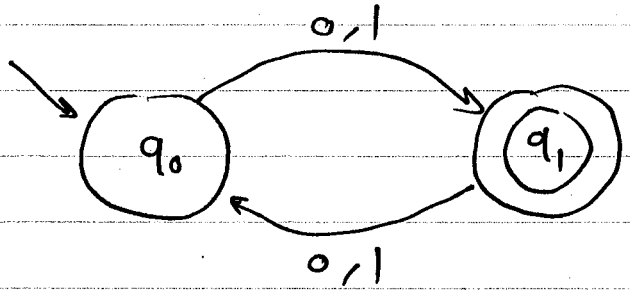
4) $F = \{q_2\}$

5)

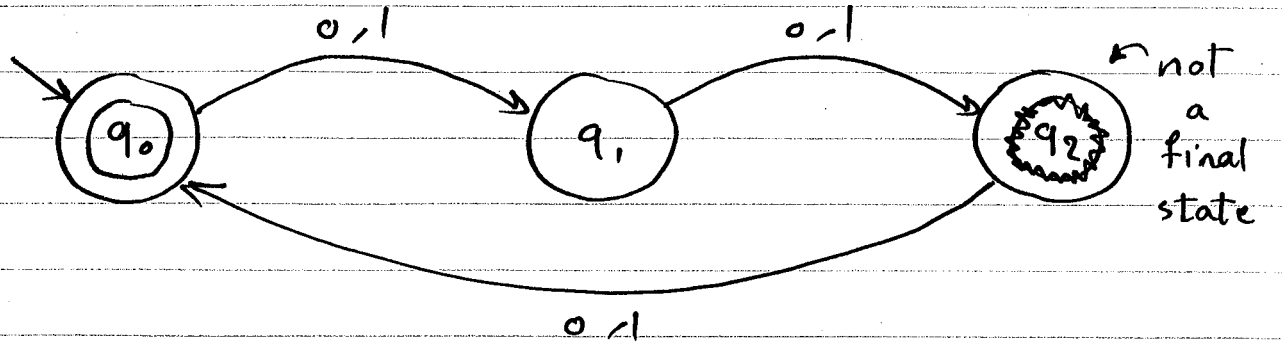
	0	1	ε
q_0	$\{q_1\}$	$\{\}$	$\{\}$
q_1	$\{\}$	$\{q_2\}$	$\{\}$
q_2	$\{q_2\}$	$\{q_2\}$	$\{\}$

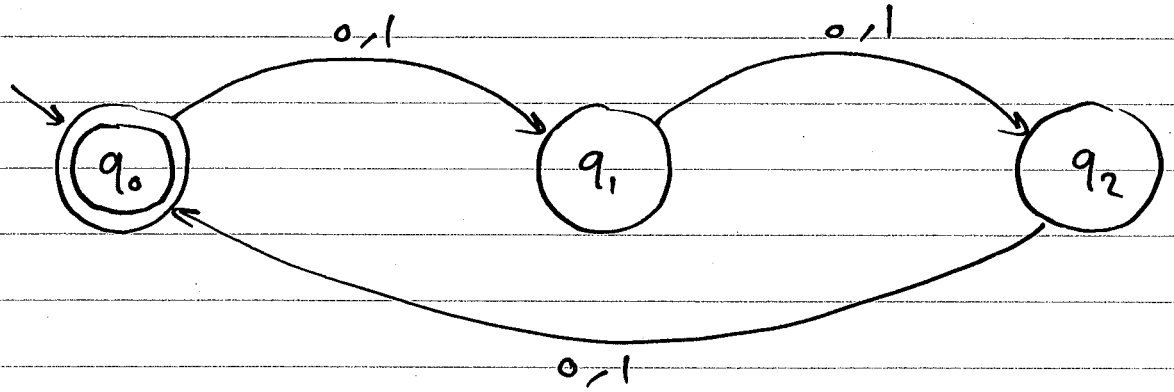
$L_3 = \{ w \mid w \text{ has even length} \}$



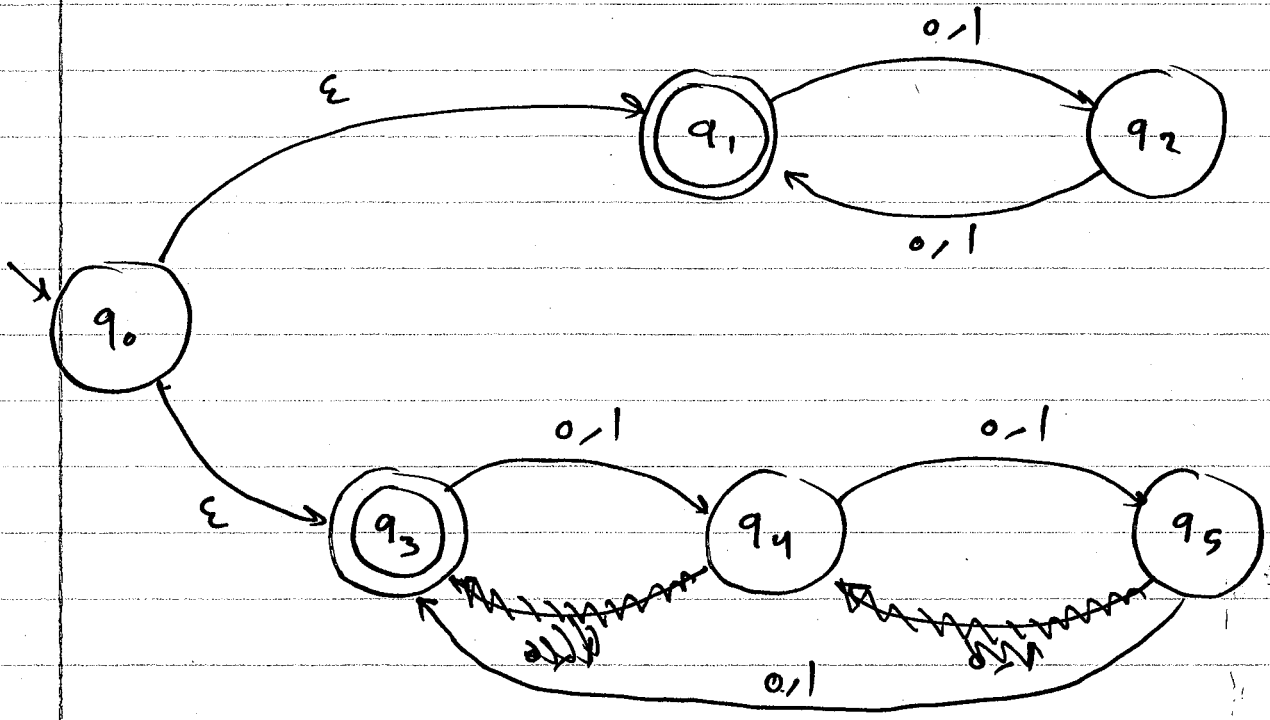


$L_4 = \{ w \mid w$'s length is multiple of $3 \}$





L_5 = { w | w's Length is a multiple of 2 OR a multiple of 3 }



1) $S = \{q_0, q_1, q_2, q_3, q_4, q_5\}$

2) $\Sigma = \{0, 1\}$

3) q_0

4) $F = \{q_1, q_3\}$

5)

	0	1	ε
q_0	Φ	Φ	$\{q_1, q_3\}$
q_1	$\{q_2\}$	$\{q_2\}$	Φ
q_2	$\{q_1\}$	$\{q_1\}$	Φ
q_3	$\{q_4\}$	$\{q_4\}$	Φ
q_4	$\{q_5\}$	$\{q_5\}$	Φ
q_5	$\{q_3\}$	$\{q_3\}$	Φ