

submission.md

# Problem Set 1

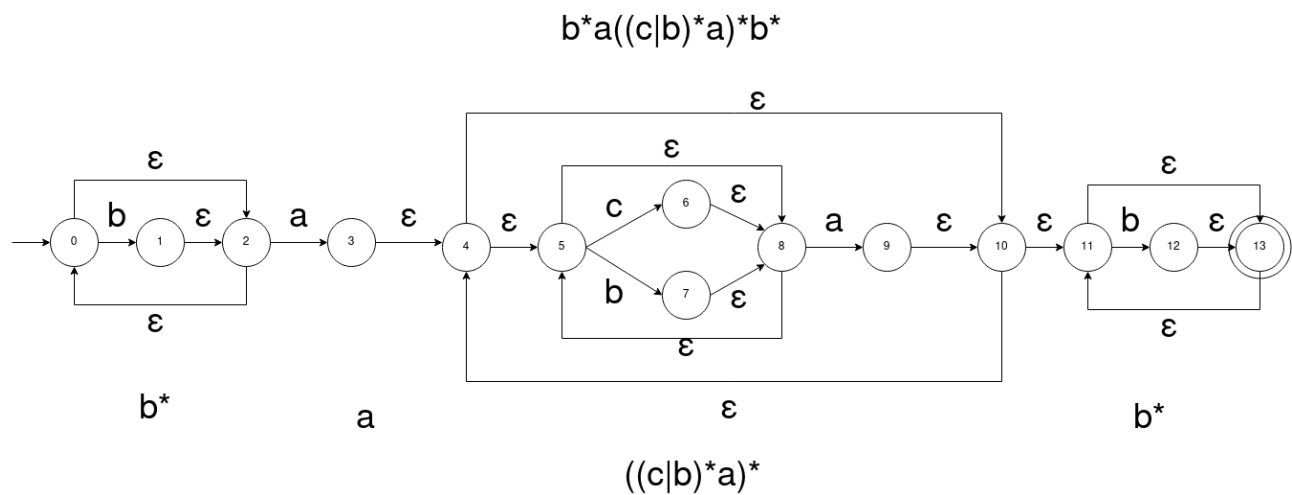
Nicolai H. Brand

1

1.1

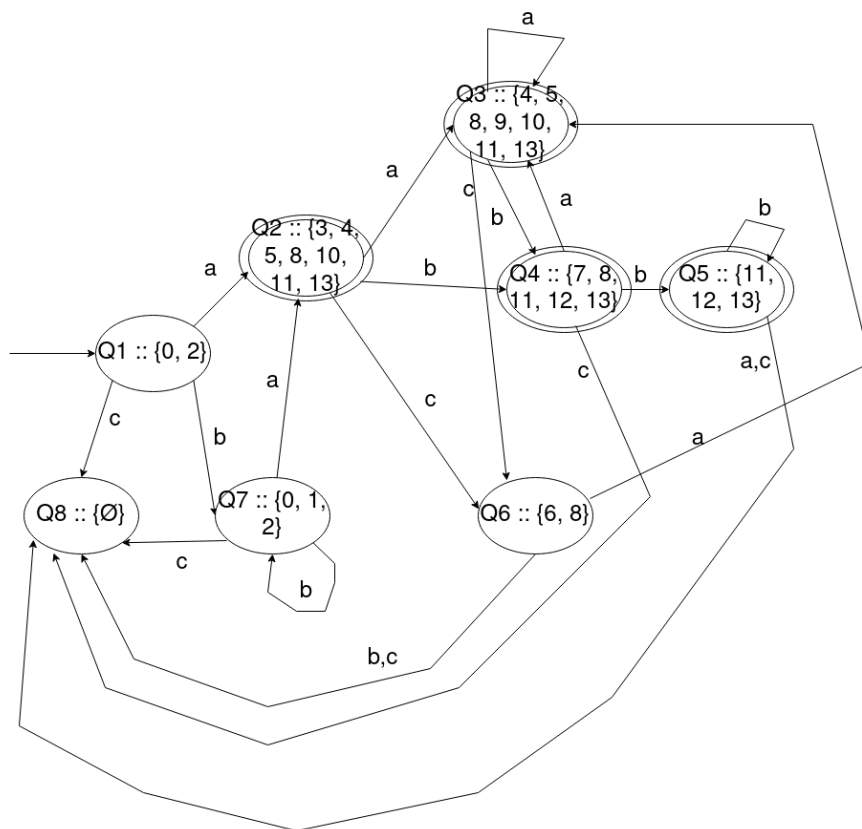
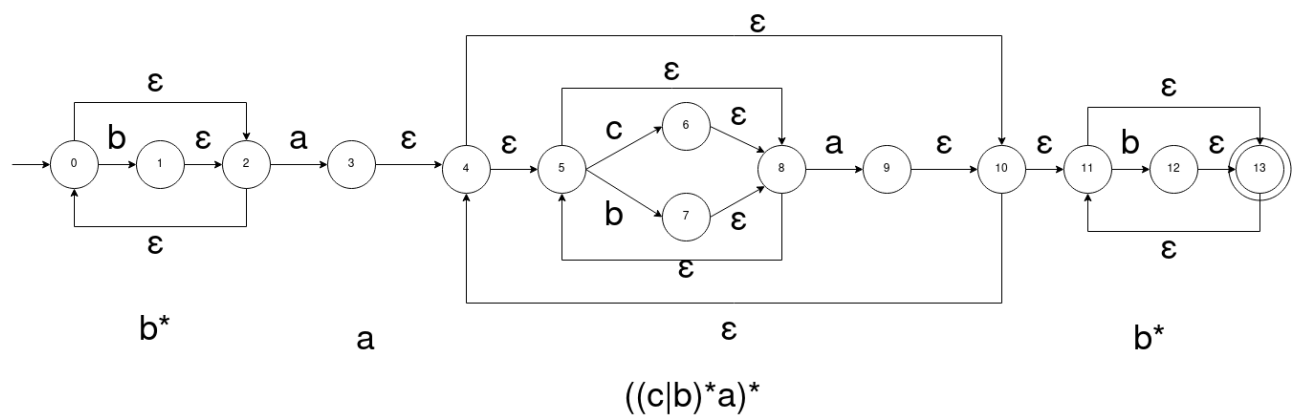
$$b^*a((c|b)^*a)^*b^*$$

1.2



1.3

$$b^*a((c|b)^*a)^*b^*$$



## 1.4

## Distinguish final and non-final states

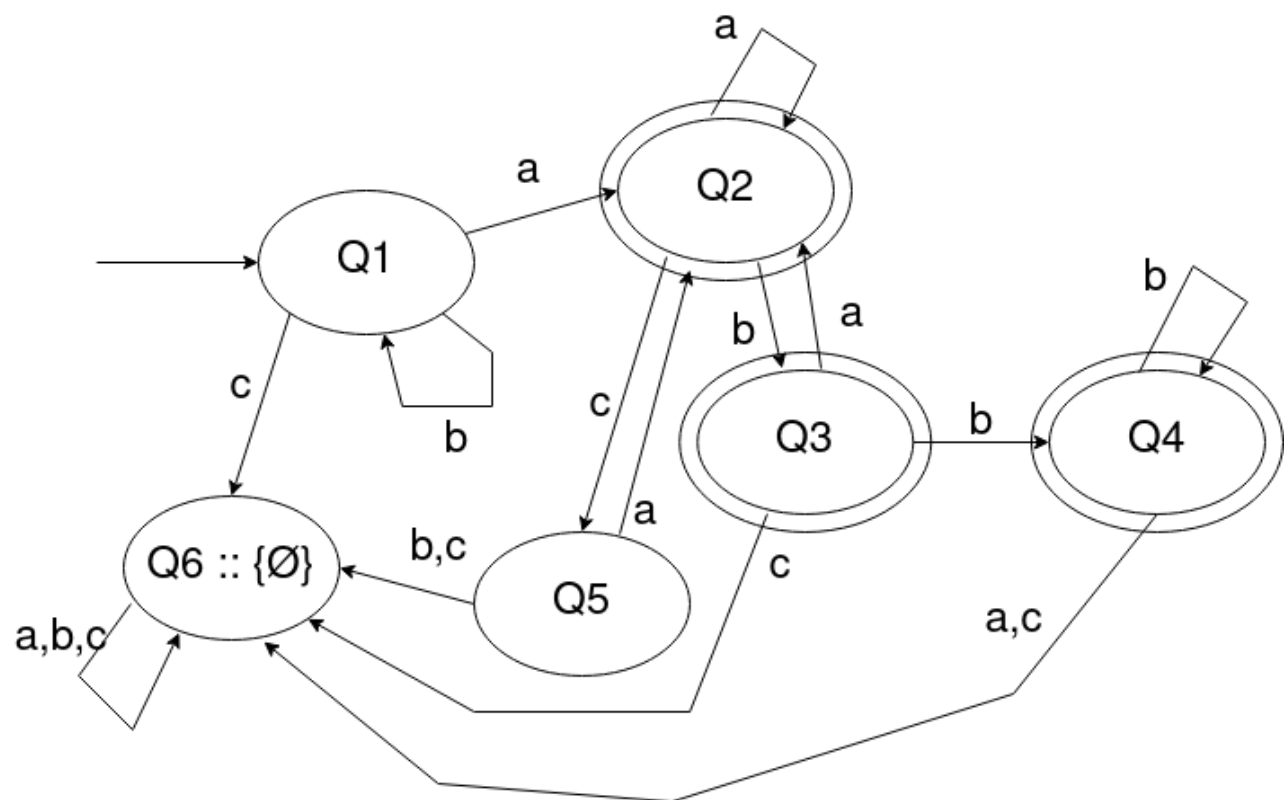
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Q1	-	-	-	-	-	-	-	-
Q2	x	-	-	-	-	-	-	-
Q3	x		-	-	-	-	-	-
Q4	x			-	-	-	-	-

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Q5	x				-	-	-	-
Q6		x	x	x	x	-	-	-
Q7		x	x	x	x		-	-
Q8		x	x	x	x			-

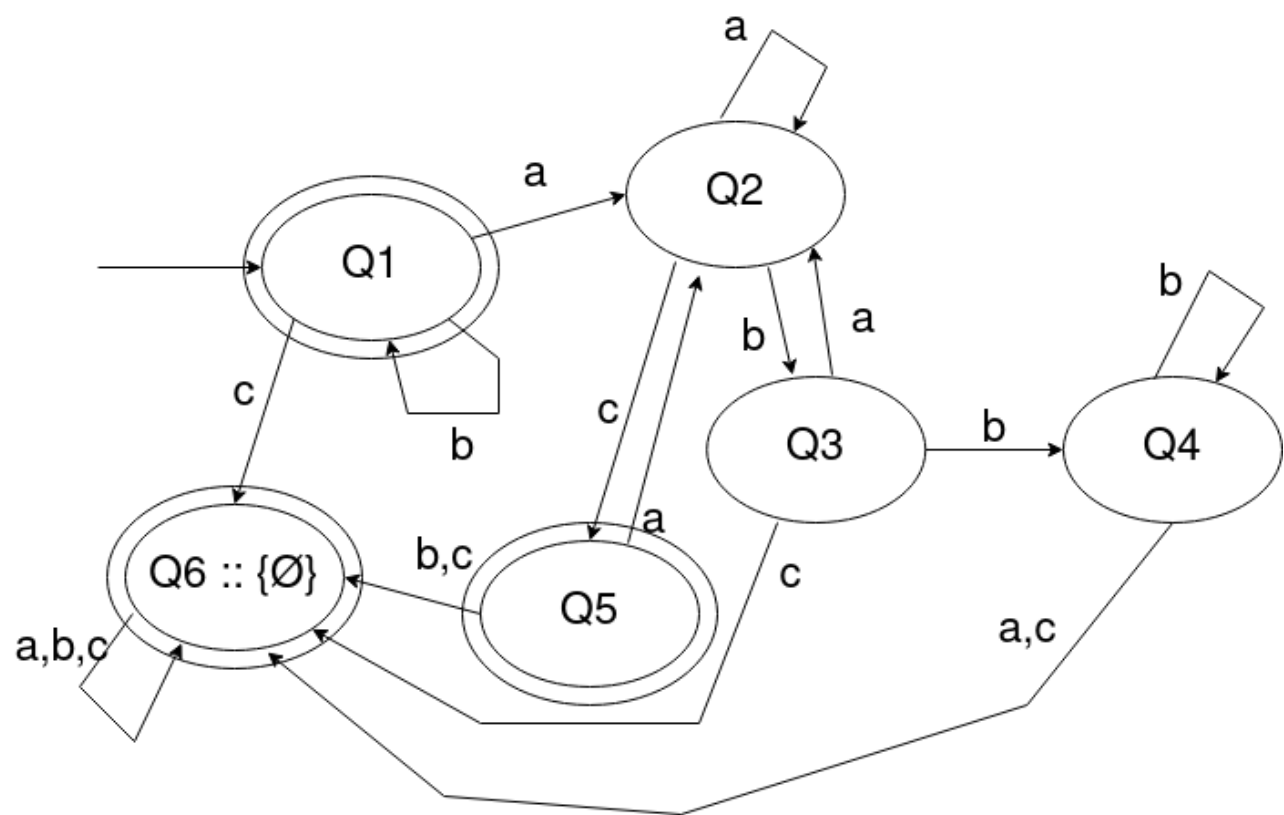
Distinguish on delta function

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Q1	-	-	-	-	-	-	-	-
Q2	x	-	-	-	-	-	-	-
Q3	x	=	-	-	-	-	-	-
Q4	x	x	x	-	-	-	-	-
Q5	x	x	x	x	-	-	-	-
Q6	x	x	x	x	x	-	-	-
Q7	=	x	x	x	x	x	-	-
Q8	x	x	x	x	x	x	x	-

Minimized DFA



1.5

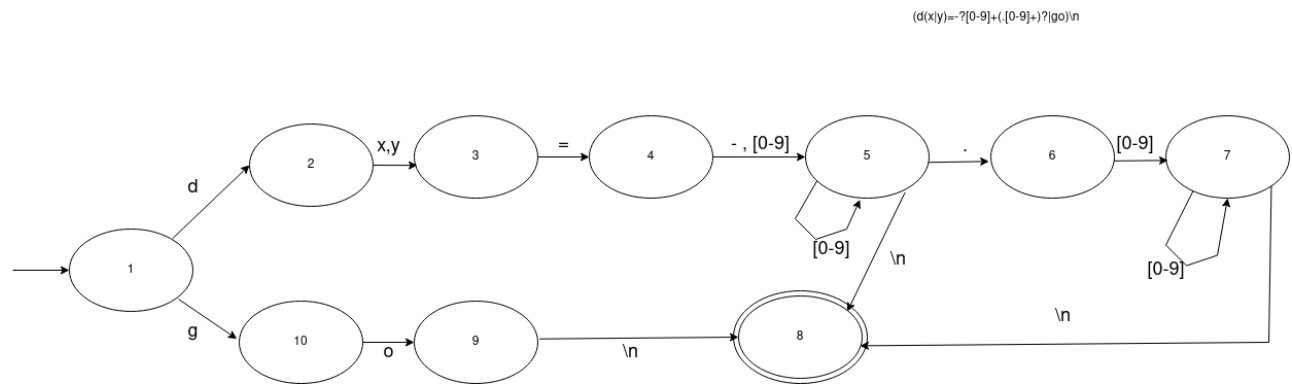


## 2

### 2.1

$(d(x|y)=-?.?[0-9]+(.[0-9]+)?|go)\backslash n$

### 2.2



### 2.3

error: 6038: unrecognized statement: dy=-2.55.