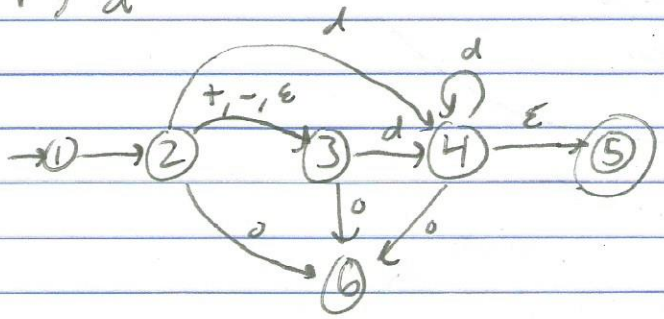
Integer

RE: $(+|-)\, d^+$

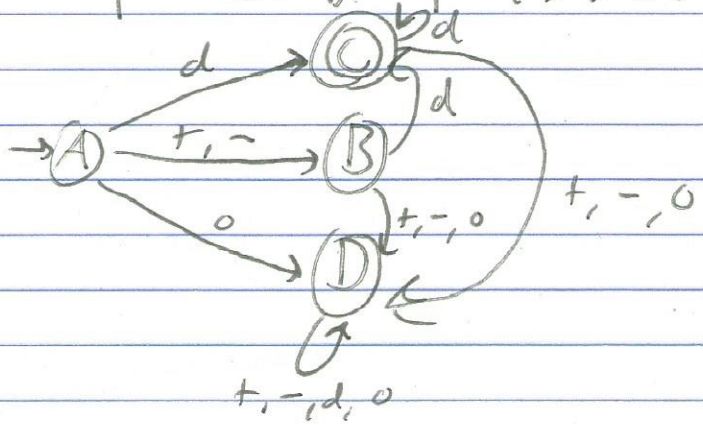
$\Sigma = \{+, -, d, o\}$

Thompsons



NFA	+	-	d	o	ε	ε-closure
1	-	-	-	-	2	1 = {1,2}
2	3	3	4	6	3	2 = {2,3}
3	6	6	4	6	-	3 = {3}
4	6	6	4	6	5	4 = {4,5}
5	-	-	-	-	-	5 = {5}
6	6	6	6	6	-	6 = {6}

	DFA	+ o	-	d	o
A 0	{1,2}	{3}∪{3}∪{3}	{3}∪{3}∪{3}	{3}∪{4}∪{4,5}	{3}∪{6}∪{6}
		{3} B	{3} B	{4,5} C	{6} D
B 1	{3}	{6}∪{6}	{6}∪{6}	{4}∪{4,5}	{6}∪{6}
		{6} D	{6} D	{4,5} C	{6} D
C 2	{4,5}	{6}∪{6}	{6}∪{6}	{4}∪{4,5}	{6}∪{6}
		{6} D	{6} D	{4,5} C	{6} D
D 3	{6}	{6}∪{6}	{6}∪{6}	{6}∪{6}	{6}∪{6}
		{6} D	{6} D	{6} D	{6} D



Real

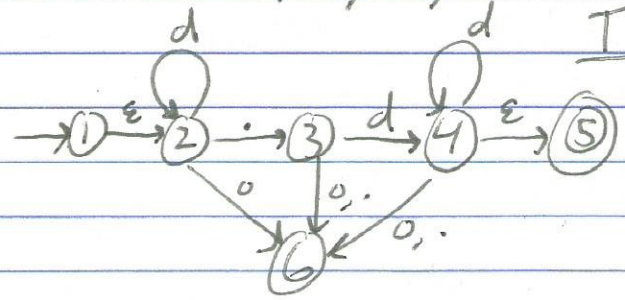
~~Integer~~, ~~RXal~~, ~~Identifier~~

$\Sigma = \{d, ., o, \varepsilon\}$

Real

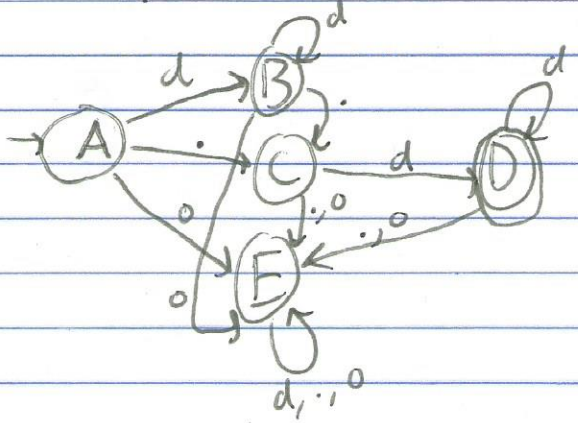
RE / $(+|-)d^*.d^+$

Thompsons



NFA	d	.	o	ε	ε-closure
1	–	–	–	{2}	1 = {1, 2}
2	2	3	6	–	2 = {2}
3	4	6	6	–	3 = {3}
4	4	6	6	{5}	4 = {4, 5}
5	–	–	–	–	5 = {5}
6	6	6	6	–	6 = {6}

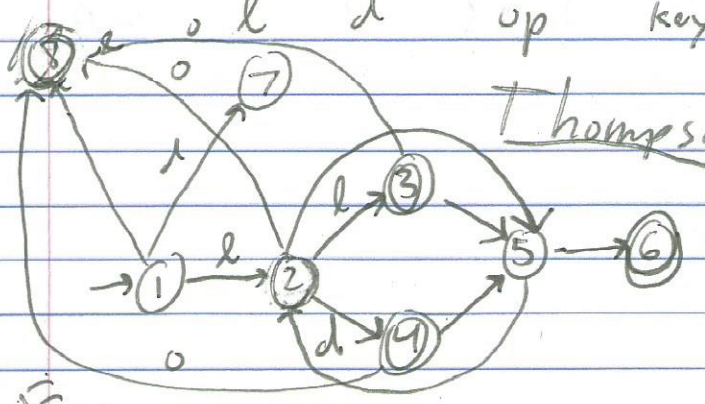
	DFA	d	.	o
A 0	{1, 2}	{}∪{2}∪{2} {2} B	{}∪{3}∪{3} {3} C	{}∪{6}∪{6} {6} E
B 1	{2}	{2}∪{2} {2} B	{3}∪{3} {3} C	{6}∪{6} {6} E
C 2	{3}	{4}∪{4, 5} {4, 5} D	{6}∪{6} {6} E	{6}∪{6} {6} E
D 3	{4, 5}	{4}∪{}∪{4, 5} {4, 5} D	{6}∪{}∪{6} {6} E	{6}∪{}∪{6} {6} E
E 4	{6}	{6}∪{6} {6} E	{6}∪{6} {6} E	{6}∪{6} {6} E



Identifier

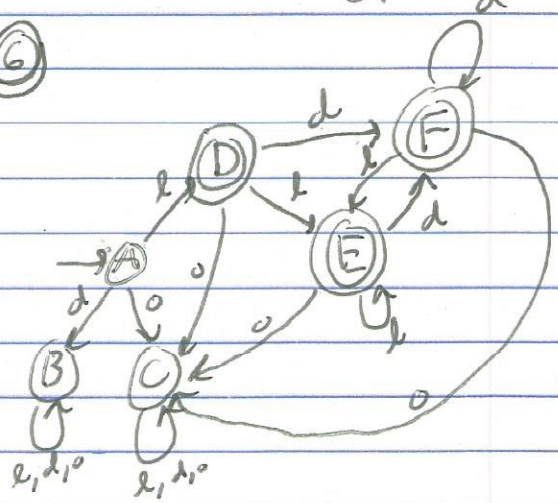
o l d op key sep

Thompsons



	0	1	2
0	3	1	2
1	1	1	1
2	2	2	2
3	4	5	2
4	4	5	2
5	4	5	2

RE: $l(l|d)^*$



$\Sigma = \{l, d, o, \varepsilon\}$

$Q = \{1, 2, 3, 4, 5, 6\}$

$q_0 = 1$

$F = \{6\}$

	l	d	o	ε
1	{2}	{7}	{8}	–
2	{3}	{4}	{8}	{5}
3	{3}	{4}	{8}	{5}
4	{3}	{4}	{8}	{5}
5	{3}	{4}	{8}	{2,6}
6	1	1	1	–
7	7	7	7	–
8	8	8	8	–

ε-closures

1 = {1}
2 = {2,5}
3 = {3,5}
4 = {4,5}
5 = {2,5,6}
6 = {6}
7 = {7}
8 = {8}

		l	d	o
o A	{1}	{2}∪{2,5}	{7}∪{7}	{8}∪{8}
		{2,5}	{7}	{8}
1 B	{7}	{7}∪{7}	{7}∪{7}	{7}∪{7}
2 C	{8}	{8}∪{8}	{8}∪{8}	{8}∪{8}
> D	{2,5}	{3}∪{5}∪	{4}∪{}∪	{8}∪{}
		{3,5}	{4,5}	{}
		{3,5}	{4,5}	{}
4 E	{3,5}	{3,5}	{4,5}	{8}
5 F	4,5	{3,5}	{4,5}	{8}