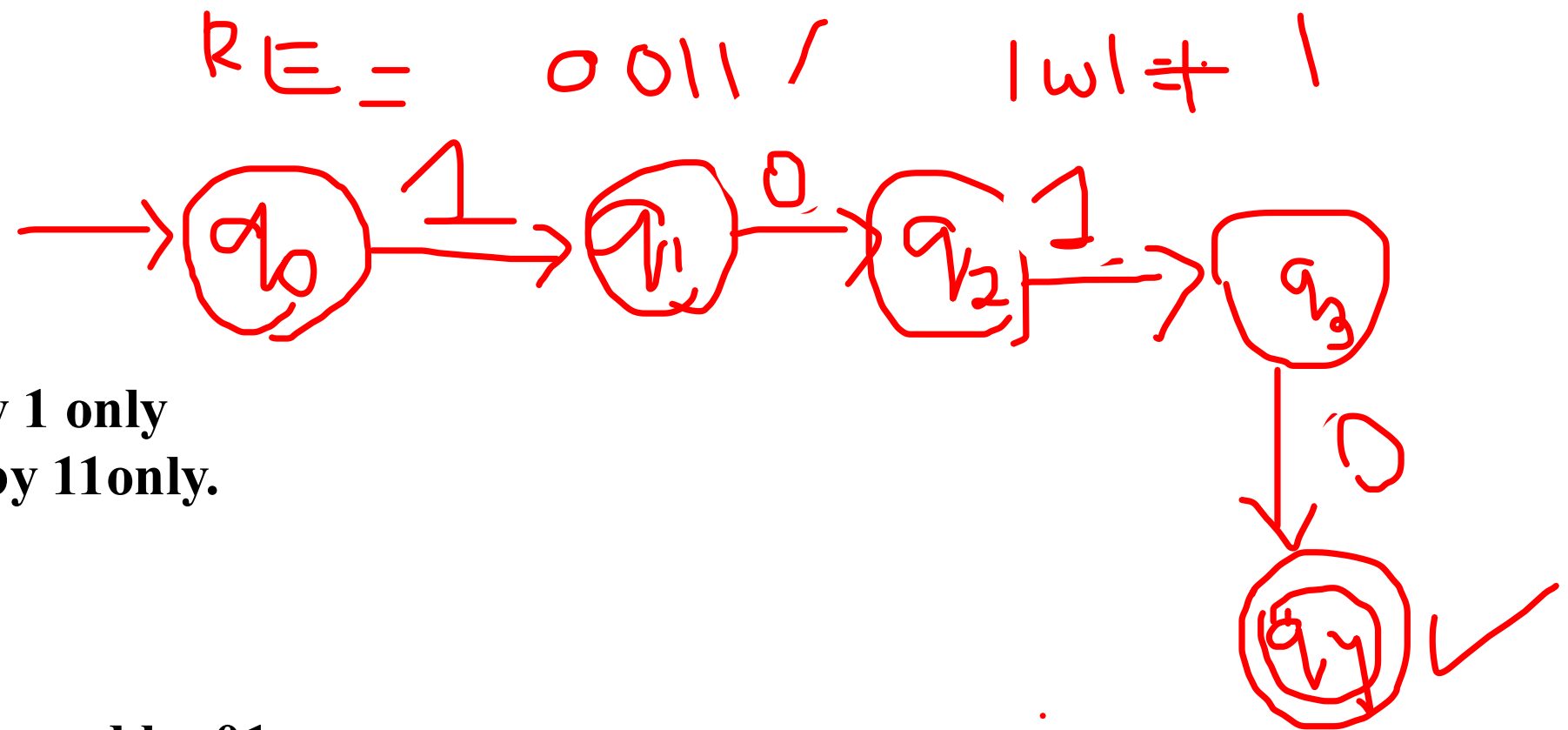


1. All strings over $\{0,1\}$ accepting only 0
2. All strings over $\{0,1\}$ accepting only 1
3. All strings over $\{0,1\}$ accepting only 00
4. All strings over $\{0,1\}$ accepting only 11
5. All strings over $\{0,1\}$ accepting 0 followed by 1 only
6. All strings over $\{0,1\}$ accepting 00 followed by 11 only.
7. All strings over $\{0,1\}$ accepting 1010 only.
8. All strings over $\{0,1\}$ accepting 0 or 1 only.
9. All strings over $\{0,1\}$ accepting 00 or 11.
10. All strings over $\{0,1\}$ accepting 00 or 11 followed by 01.
11. All strings over $\{0,1\}$.
12. All strings over $\{0,1\}$ accepting 0's only (including null)
13. All strings over $\{0,1\}$ accepting 0's only (excluding null)
14. All strings over $\{0,1\}$ accepting 1's only (including null)
15. All strings over $\{0,1\}$ accepting 1's only (excluding null)
16. All strings over $\{0,1\}$ ending with 00.
17. All strings over $\{0,1\}$ starting with 11.
18. All strings over $\{0,1\}$ starting with 11 and ending with 00
19. String accepting null only.

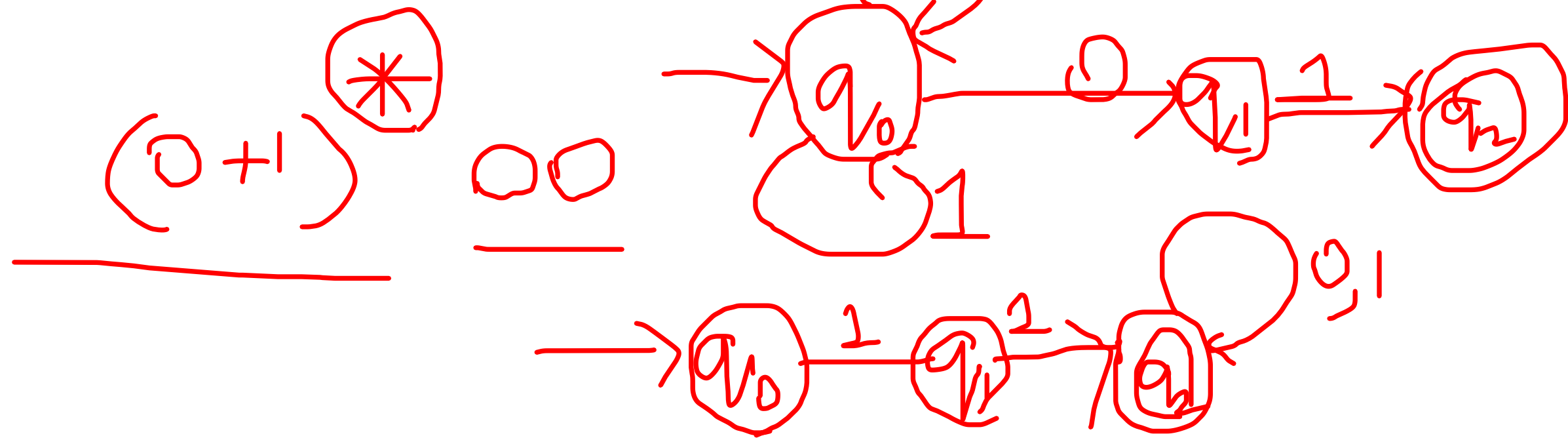


16. All strings over $\{0,1\}$ ending with **00**.

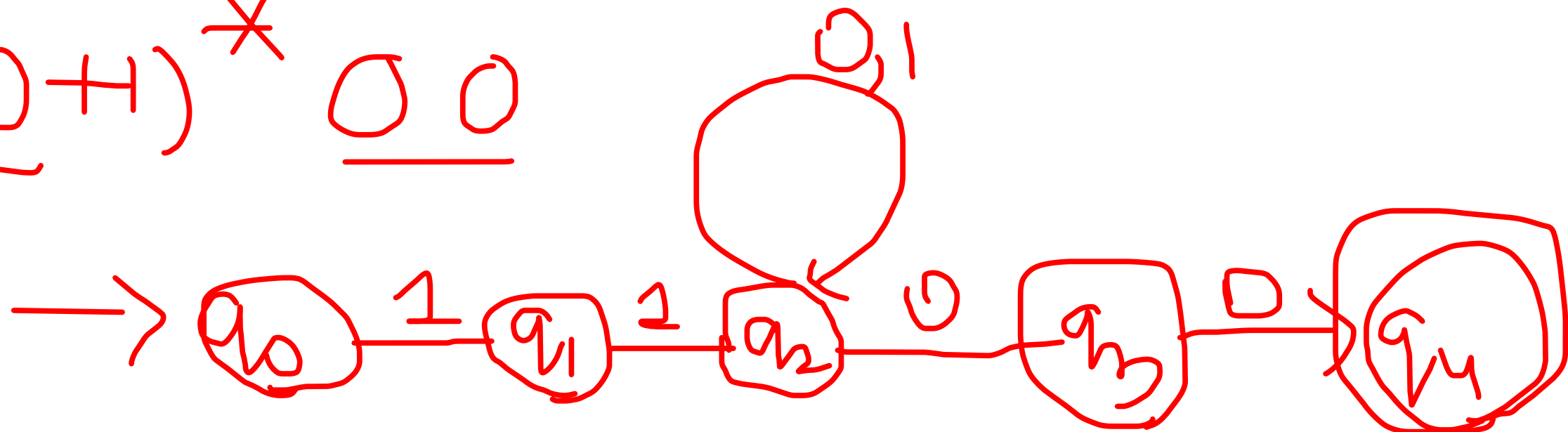
✓ 17. All strings over $\{0,1\}$ starting with 11.

✓ 18. All strings over $\{0,1\}$ starting with 11 and ending with 00

19. String accepting null only.

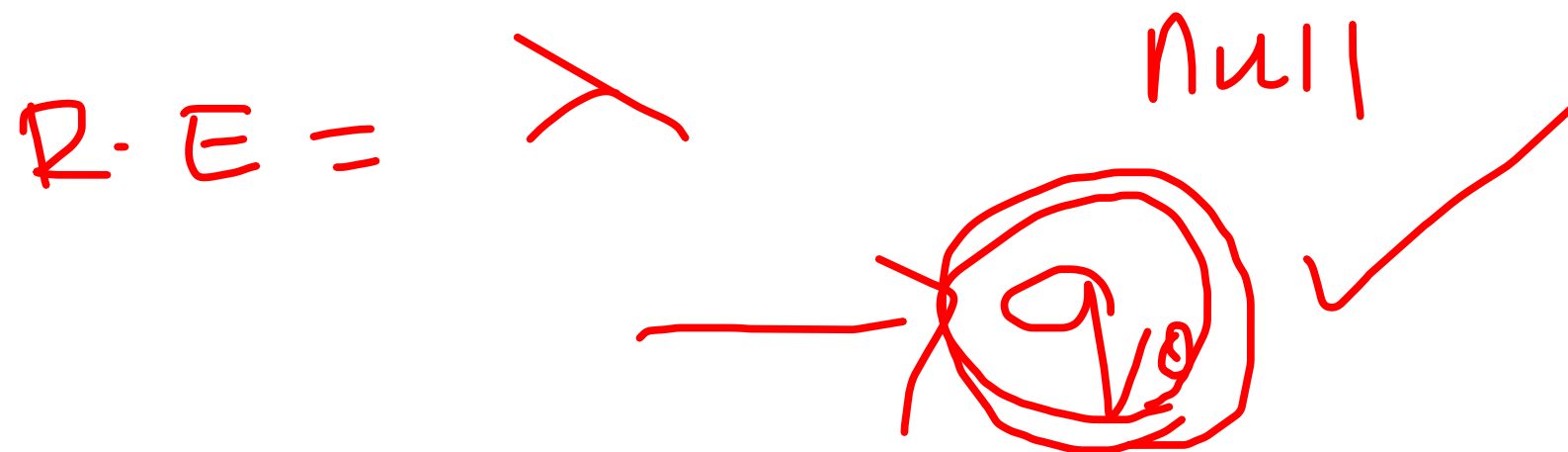


11 $(0+1)^*$ 00



~~18.~~ All strings over $\{0,1\}$ starting with 11 and ending with 00

19) null



13. All strings over $\{0,1\}$ accepting 0's only (excluding null)

14. All strings over $\{0,1\}$ accepting 1's only (including null)

15. All strings over $\{0,1\}$ accepting 1's only (excluding null)

$\rightarrow 1^*$
 $\rightarrow 11^*$

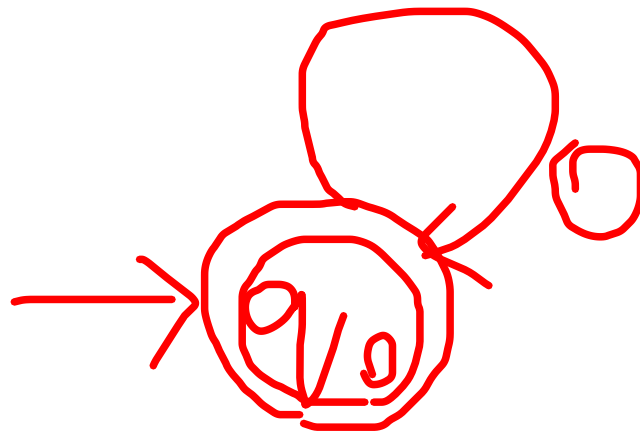
null
0 null = 0

~~L = { null, 0, 00, 000 ... }~~
L = { 0, 00, 000 ... }

00 *

12. All strings over $\{0,1\}$ accepting 0's only (including null)
13. All strings over $\{0,1\}$ accepting 0's only (excluding null)
14. All strings over $\{0,1\}$ accepting 1's only (including null)
15. All strings over $\{0,1\}$ accepting 1's only (excluding null)
16. All strings over $\{0,1\}$ ending with 00.
17. All strings over $\{0,1\}$ starting with 11.

$$R.E = 0^*$$



$L = \{$
 null ✓
 0 ✓
 00 ✓
 000
 000... }

✓ 11. All strings over $\{0,1\}$ including null

$$R.E = (0+1)^* \checkmark$$

12. All strings over $\{0,1\}$ accepting 0's only (including null)

13. All strings over $\{0,1\}$ accepting 0's only (excluding null)

14. All strings over $\{0,1\}$ accepting 1's only (including null)

15. All strings over $\{0,1\}$ accepting 1's only (excluding null)

✓ 0101000'
✓ 100110

$L = \{ \text{null}, 0, 00, 000, \dots \}$
 $1, 11, 111, \dots$

0's

1's

1.	0
2	0
3	0
4	0
5	0

(0+1)

* ✓

✓
✓
✓

n=11

* = 5 ✓

(C+1)

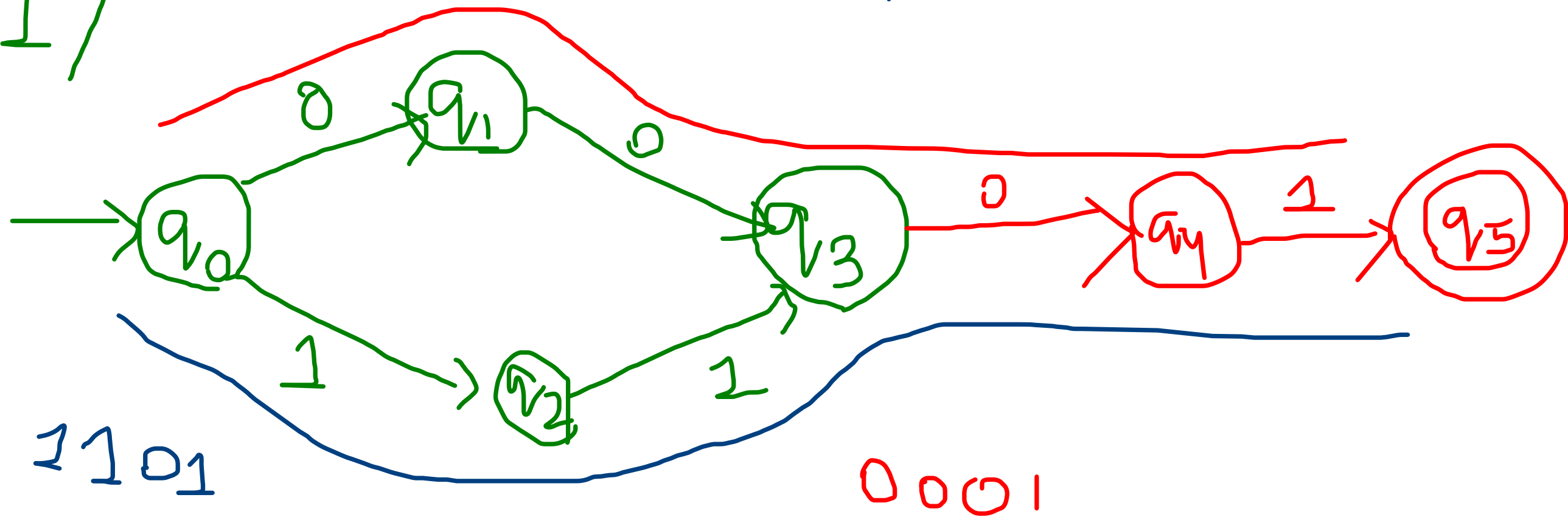
5

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

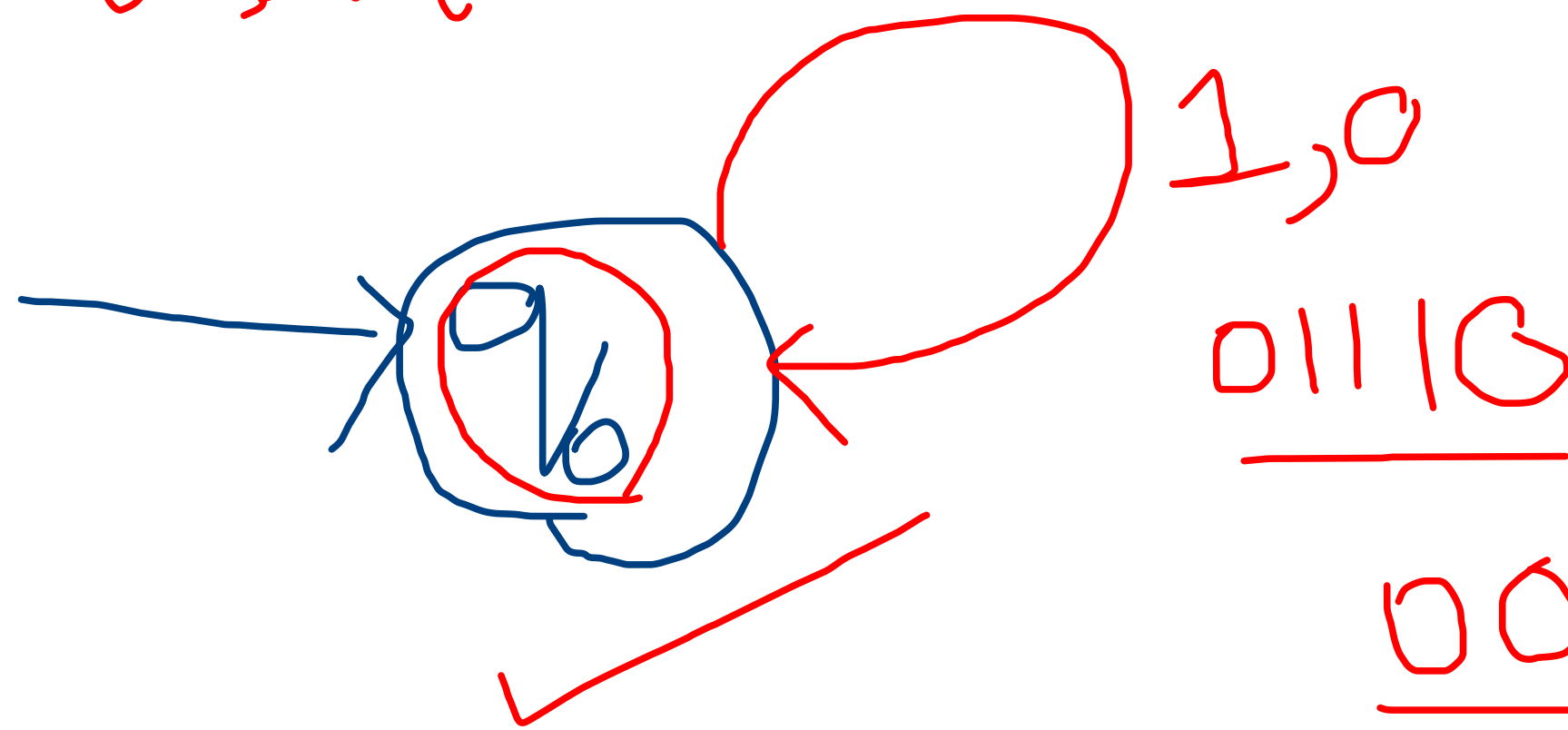
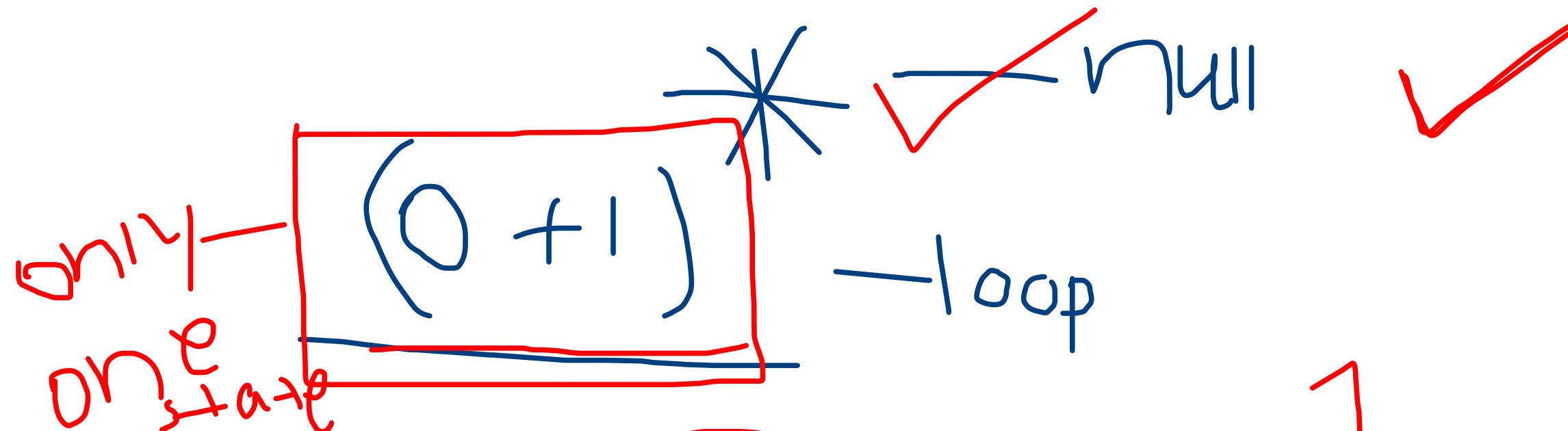
↓

10. All strings over $\{0,1\}$ accepting 00 or 11 followed by 01.

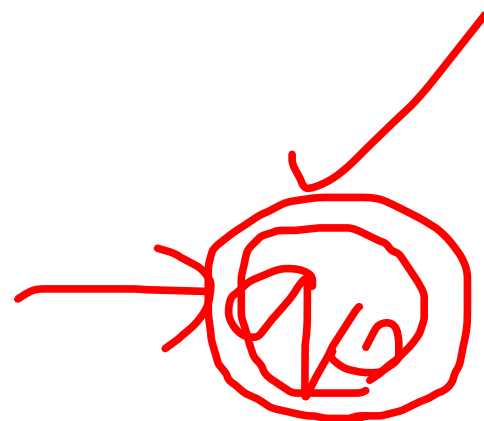
$(00+11)01$ /



Closure=one
state ,loop



1
11
1111
000



✓ 10. All strings over $\{0,1\}$ accepting 00 or 11 followed by 01. ✓

11. All strings over $\{0,1\}$.

12. All strings over $\{0,1\}$ accepting 0's only (including null)

13. All strings over $\{0,1\}$ accepting 0's only (excluding null)

14. All strings over $\{0,1\}$ accepting 1's only (including null)

$R \cdot E$

✓
 $(00 + 11)$ ✓

✓
01

$L = \{$

00 01

$, 1101\}$

8. All strings over $\{0,1\}$ accepting 0 or 1 only.

9. All strings over $\{0,1\}$ accepting 00 or 11.

10. All strings over $\{0,1\}$ accepting 00 or 11 followed by 01.

11. All strings over $\{0,1\}$.

12. All strings over $\{0,1\}$ accepting 0's only (including null)

13. All strings over $\{0,1\}$ accepting 0's only (excluding null)

14. All strings over $\{0,1\}$ accepting 1's only (including null)

15. All strings over $\{0,1\}$ accepting 1's only (excluding null)

16. All strings over $\{0,1\}$ ending with 00.

17. All strings over $\{0,1\}$ starting with 11.

18. All strings over $\{0,1\}$ starting with 11 and ending with 00

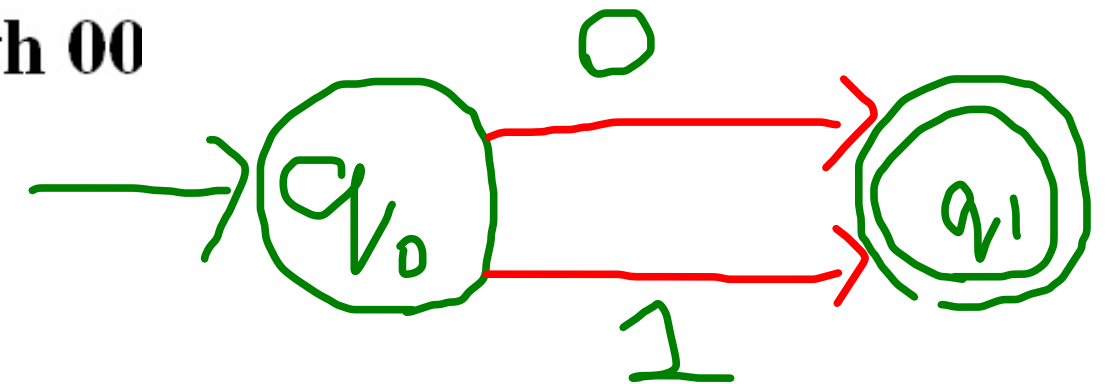
19. String accepting null only.

OR= Parallel edge

$$RE = 0 + 1$$

$$L = \{0, 1\}$$

All possibilities in L



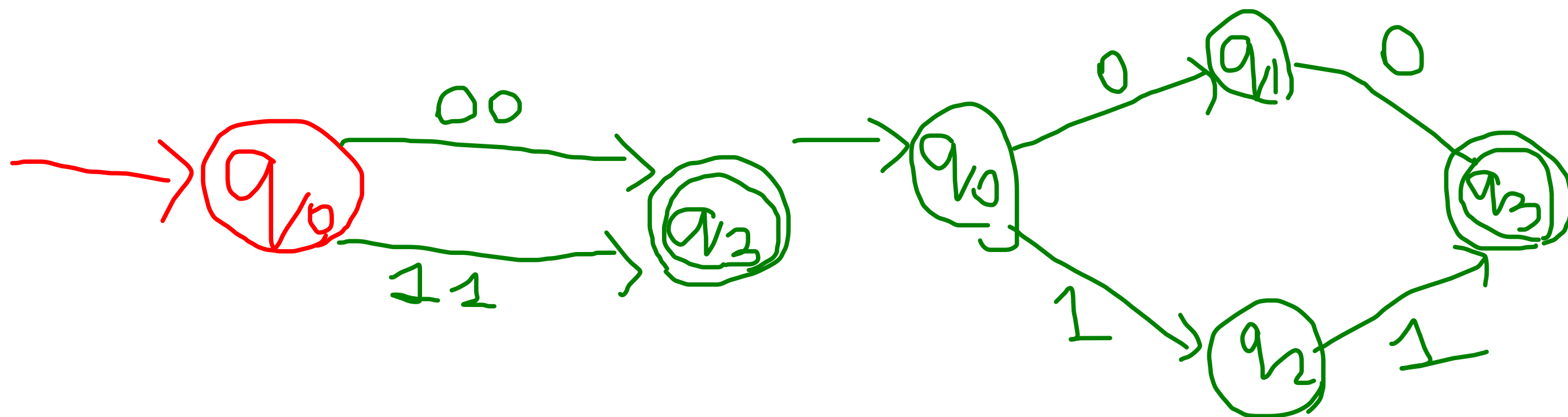
9. All strings over $\{0,1\}$ accepting 00 or 11.

10. All strings over $\{0,1\}$ accepting 00 or 11 followed by 01.

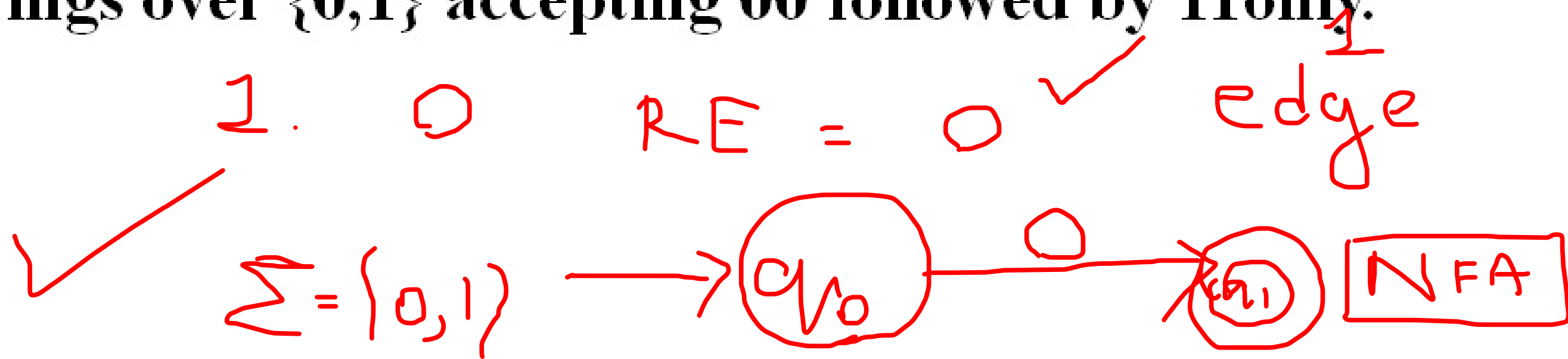
R-E =

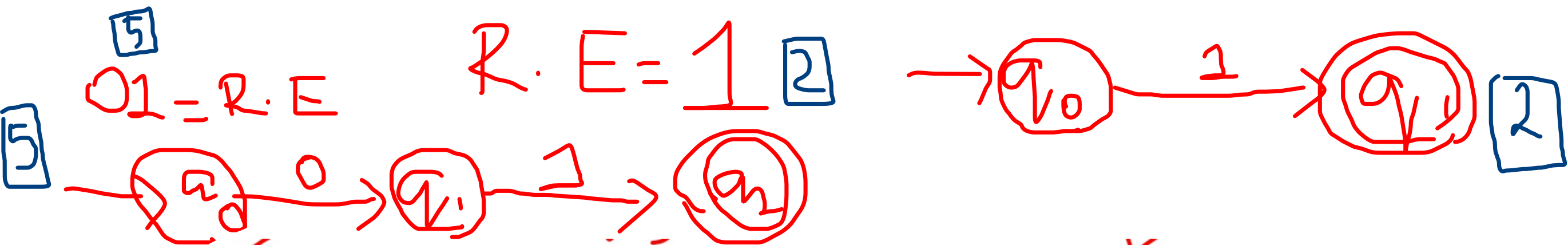
00 + 11

Single edge=single input

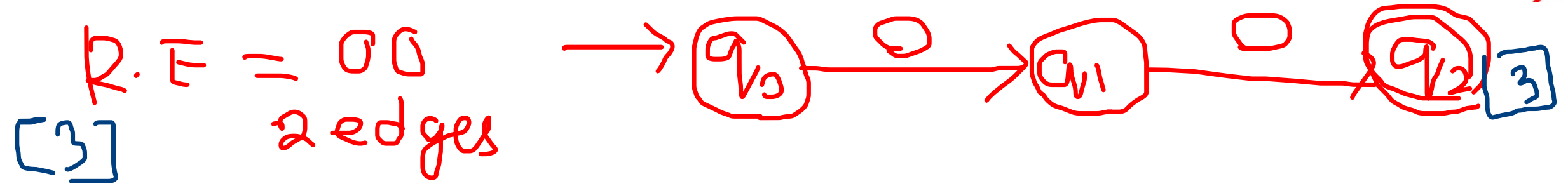
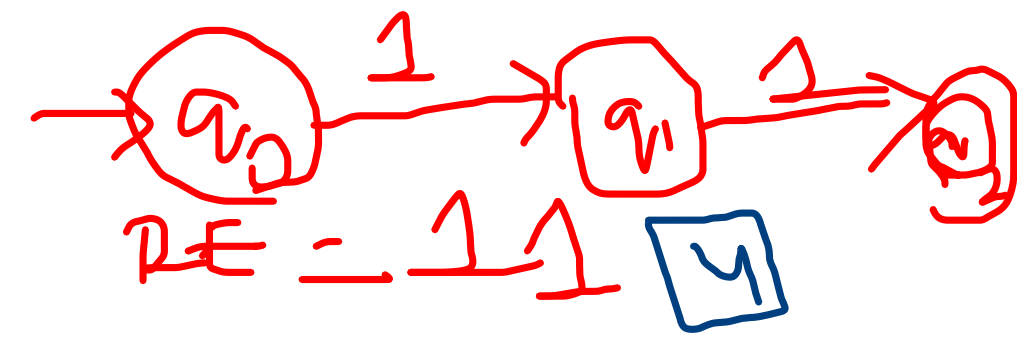


- ✓ 1. All strings over ~~{0,1}~~ accepting only 0 ✓ Write regular expression
2. All strings over {0,1} accepting only 1
3. All strings over {0,1} accepting only 00
4. All strings over {0,1} accepting only 11
5. All strings over {0,1} accepting 0 followed by 1 only
6. All strings over {0,1} accepting 00 followed by 11 only.





1. All strings over {0,1} accepting only 0
 2. All strings over {0,1} accepting only 1
 3. All strings over {0,1} accepting only 00
 4. All strings over {0,1} accepting only 11
 5. All strings over {0,1} accepting 0 followed by 1 only
 6. All strings over {0,1} accepting 00 followed by 11 only.
- Write regular expression 4



Regular expression: Expressions used to represent the pattern of language accepted by a finite automaton. It Describes the ptttern of strings accepted by the finite Automaton

Language: Represents the strings accepted by the finite automaton.

Regular Language: Languge Accepted by Regular Expression.

Regular Set: Any set that represents the value of the Regular Expression is called a Regular Set.