

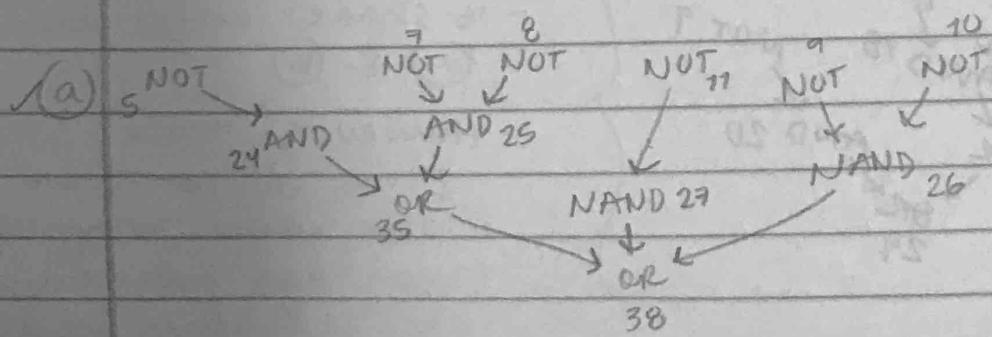
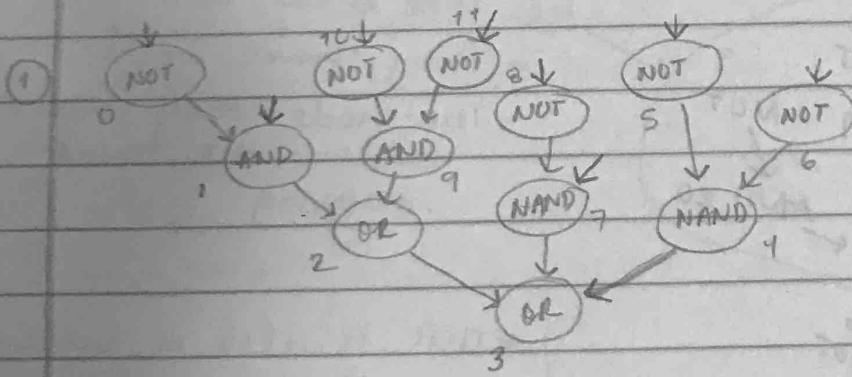
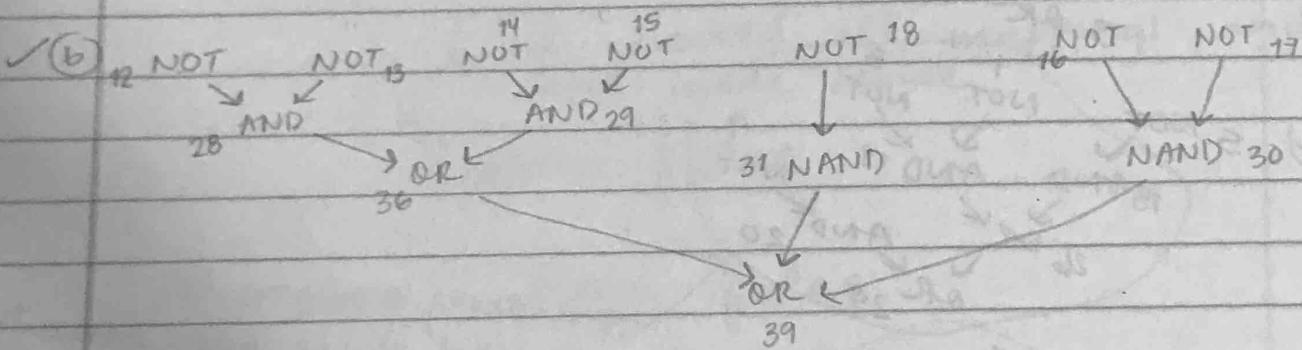
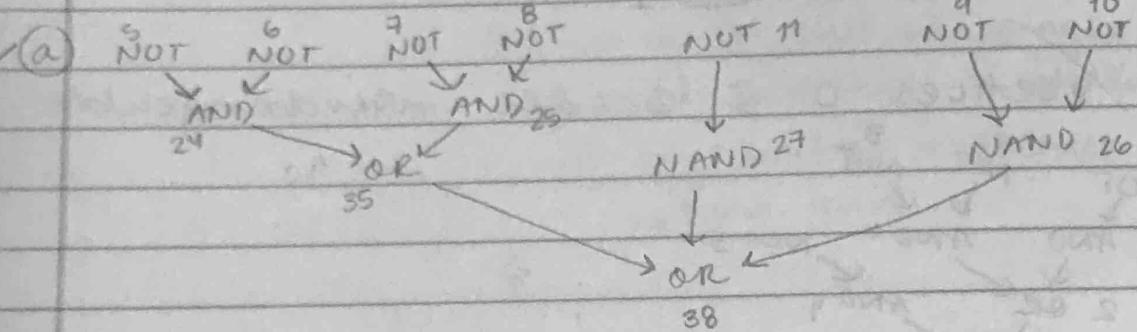
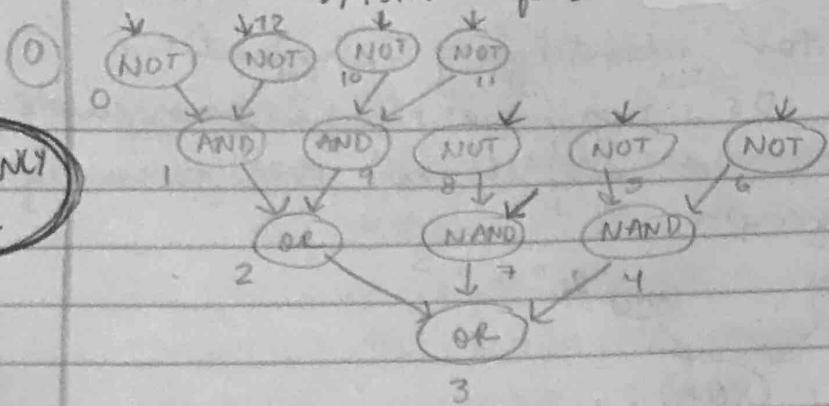
Test .fsm -file

Test7.eg -minsize 5

Size 13

13/01/2020

FREQUENCY
OF 2



Size 12

13/01/2020

(a) Variations
6 NOT
24 AND

7 NOT
AND 25

NOT 11

9 NOT
10 NOT

OR 35

NAND 27

OR

38

6 instead of 5 ✓ valid

7 NOT
25 AND

5 NOT
AND 24

NOT 11

9 NOT
10 NOT

OR 35

NAND 27

NAND 26

OR

38

5 ↓ 6 ↓ instead of 7 ↓ 8 ↓ valid
24 25

12 NOT
28 AND

11 NOT
AND 29

NOT 18

16 NOT
17 NOT

36 OR

NAND 31

NAND 30

39

Variations

14 NOT
29 AND

12 NOT
13 NOT
AND 28

NOT 18

10 NOT
17 NOT

OR
36

NAND 31

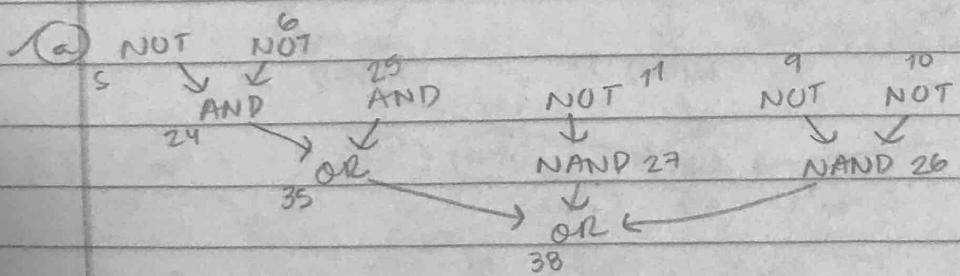
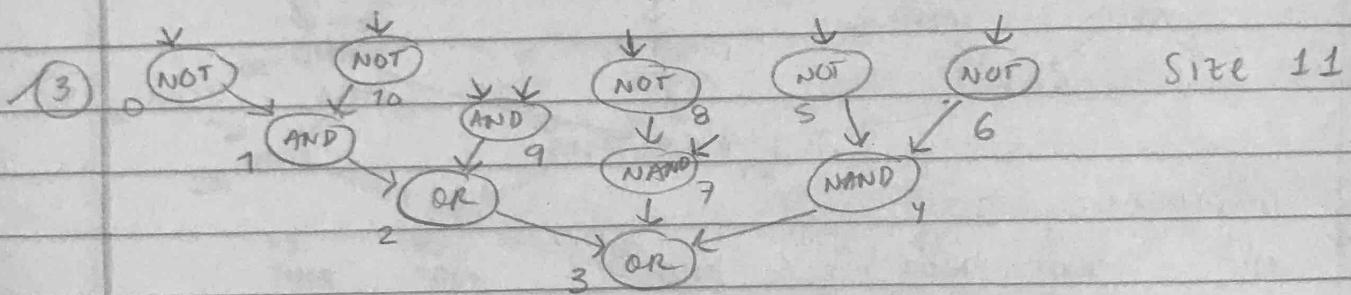
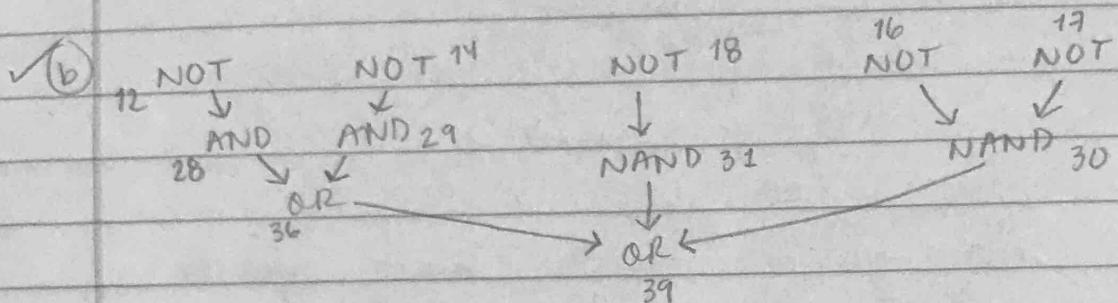
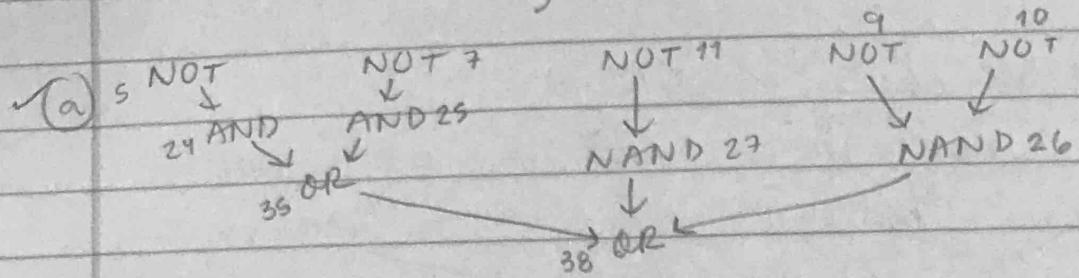
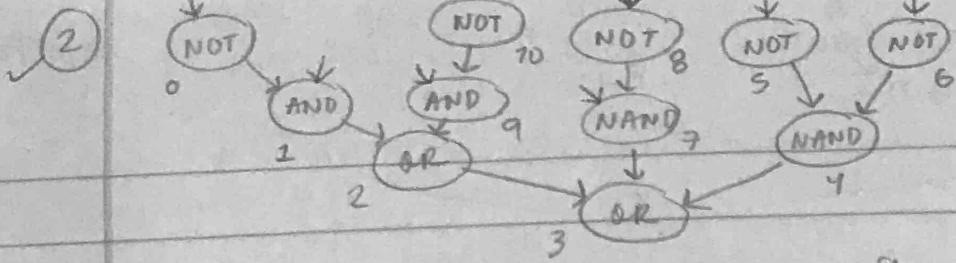
NAND 30

39

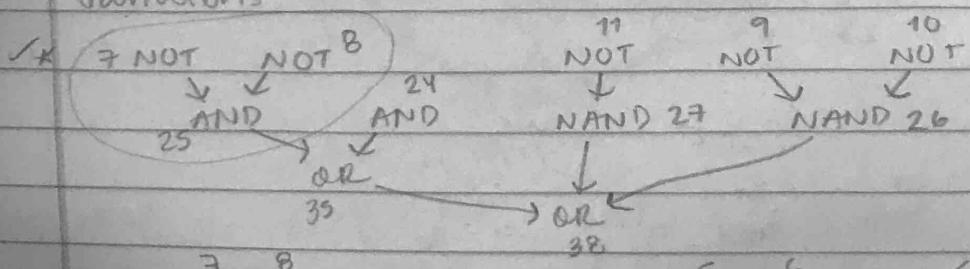
12 ↓ 13 ↓ instead of 14 ↓ 15 ↓ valid
28 29

Size 11

13/01/2020

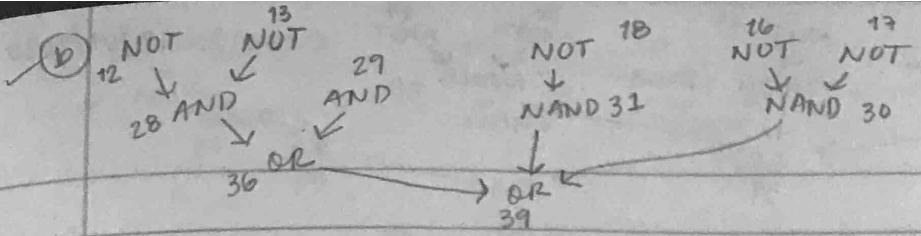


Variations

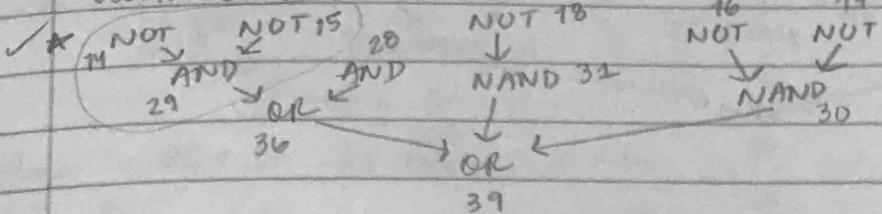


instead of ✓ valid

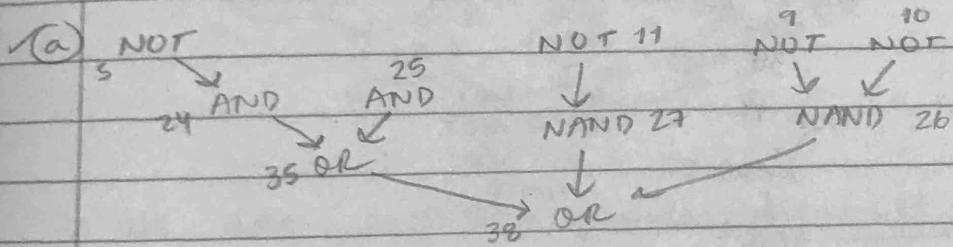
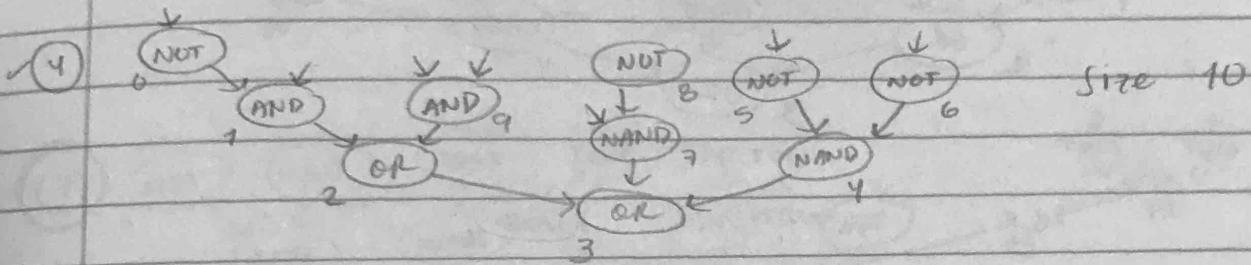
13/01/2020



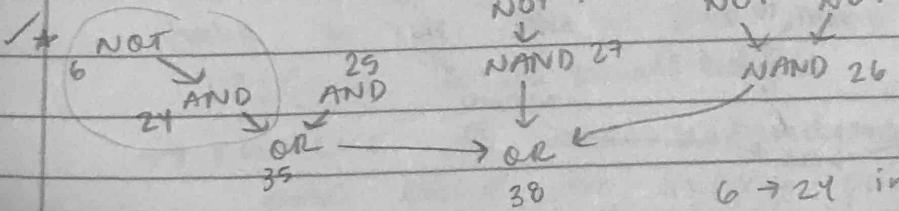
Variations



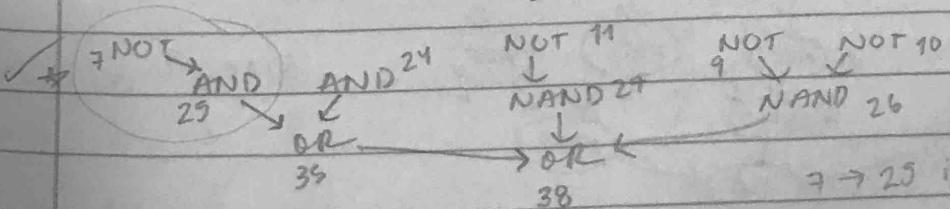
instead of valid



Variations

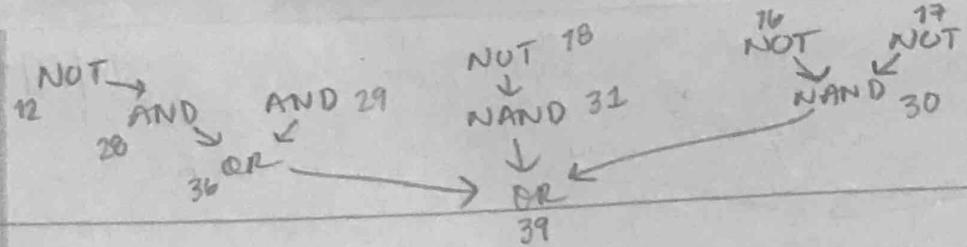


6 → 24 instead of 5 → 24 valid

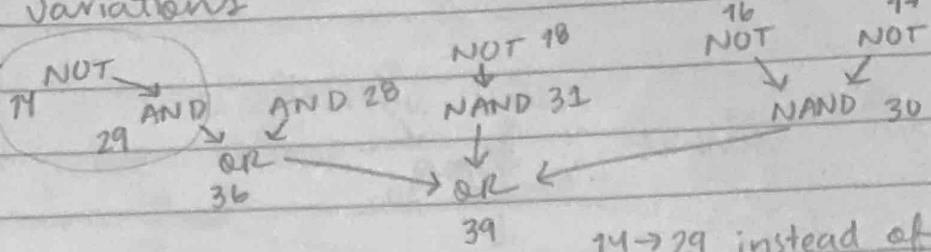


7 → 25 instead of 5 → 24 valid

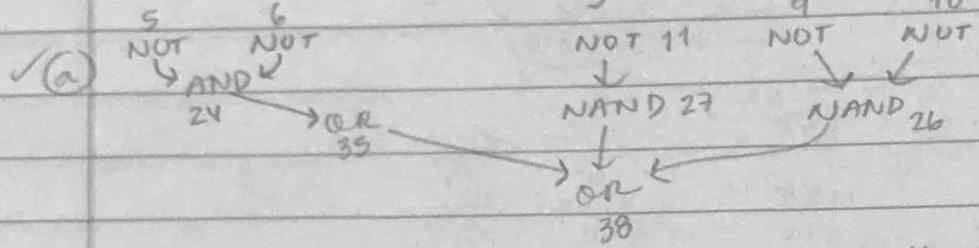
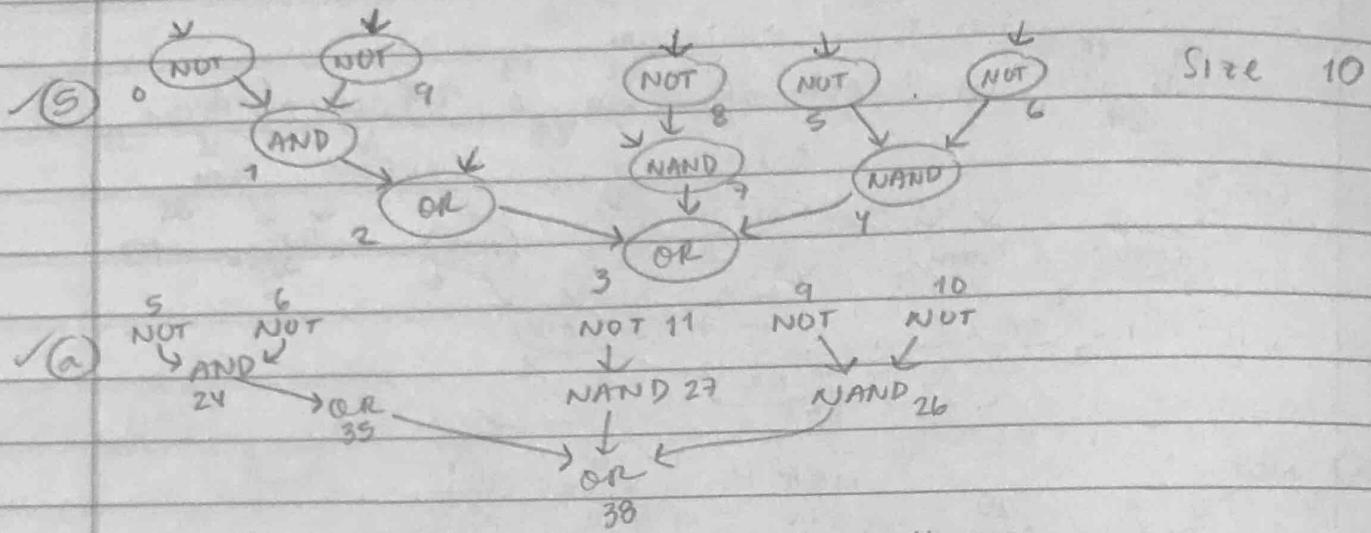
13/01/2020



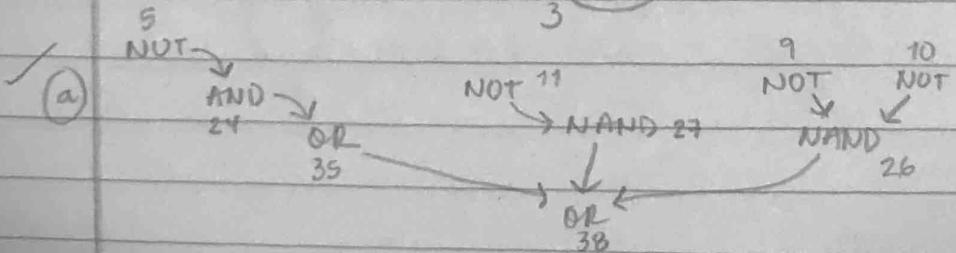
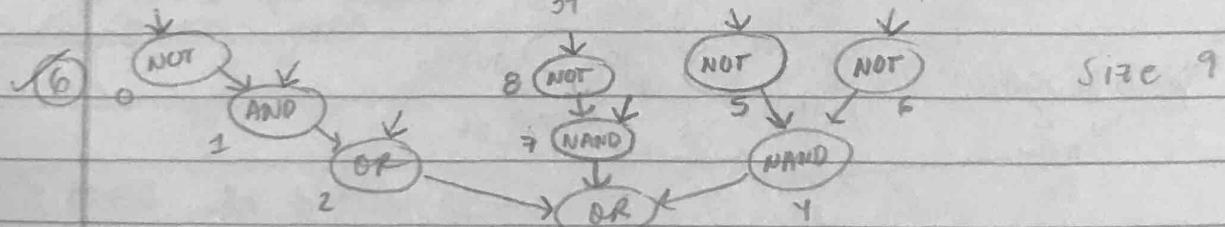
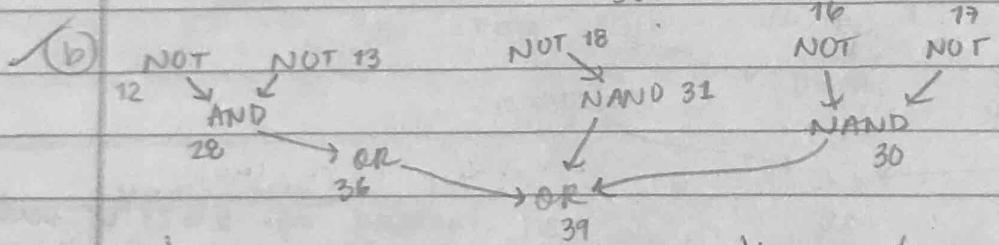
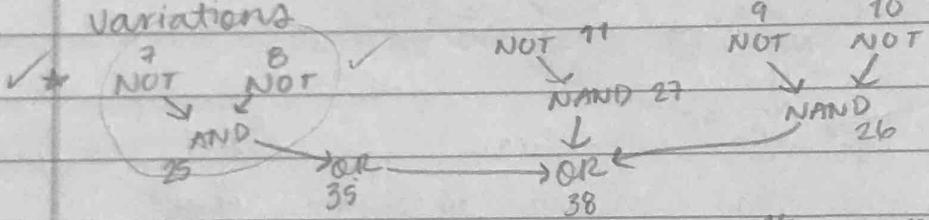
Variations



14 → 29 instead of 12 → 28 ✓ valid



Variations



13/01/2020

(a) Variations

✓ * NOT
6 AND
24 OR
35

11
NOT
NAND
27
↓
OR
38

9
NOT
NAND
26
10
NOT
NAND
26

6 → 24 instead of 5 → 24
✓ valid

✓ * NOT
7 AND
25 OR
35

NOT 11
↓ NAND 27
↓
OR
38

9
NOT
NAND
26
10
NOT
NAND
26

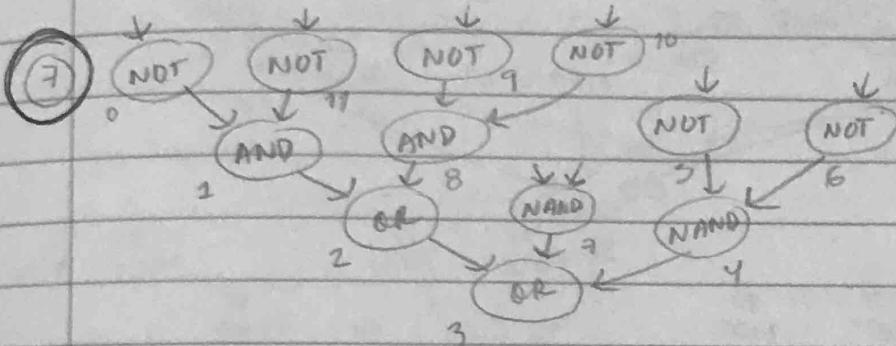
7 → 25 instead of 5 → 24
✓ valid

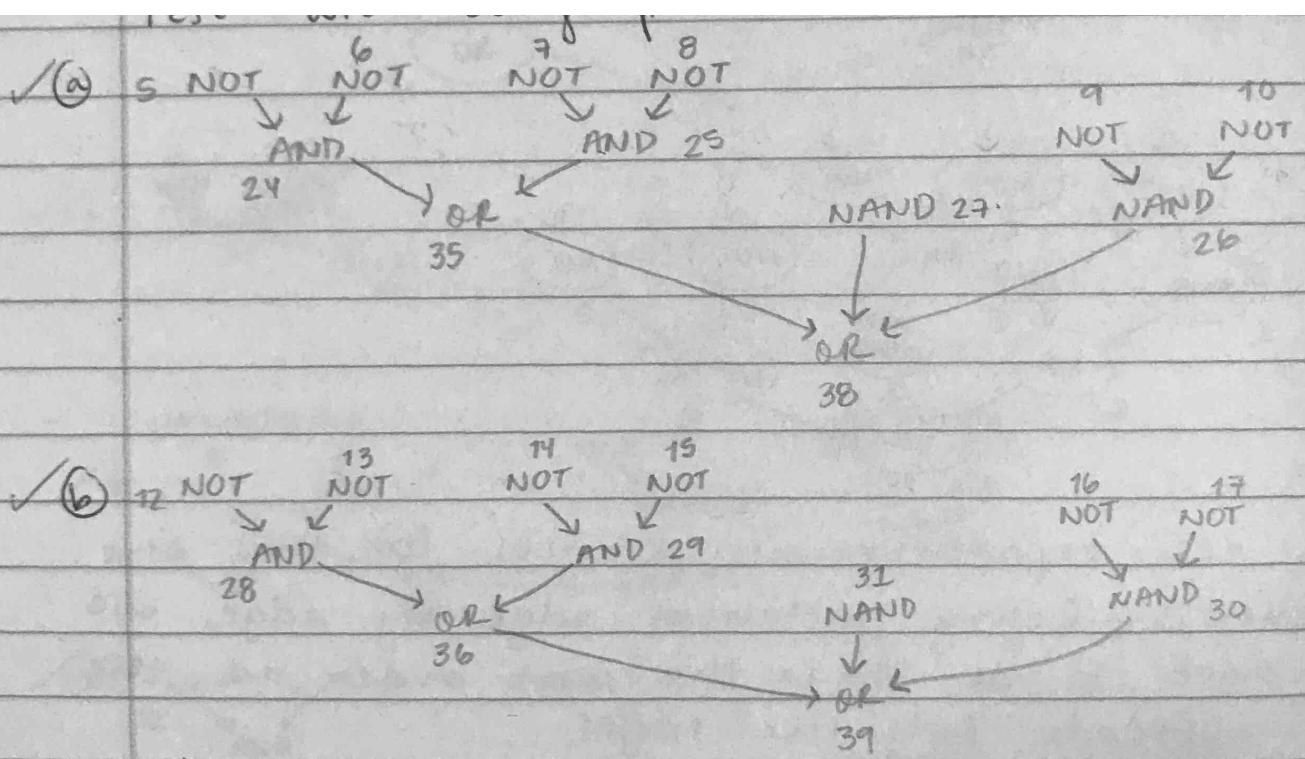
✓ * NOT
12 AND
28 OR
30

NOT 18
↓ NAND 31
↓
OR
39

16
NOT
NAND
30
17
NOT
NAND
30

SIZE 12

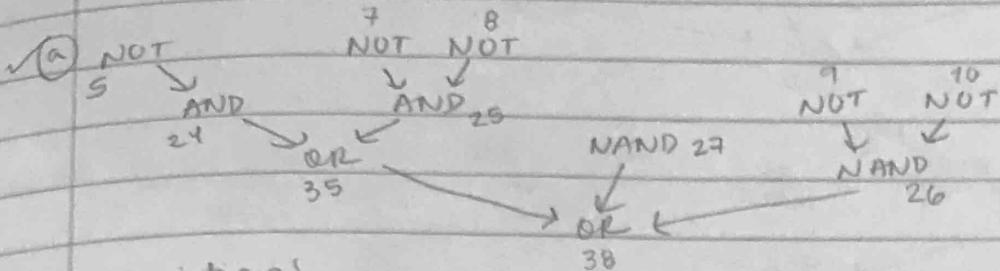
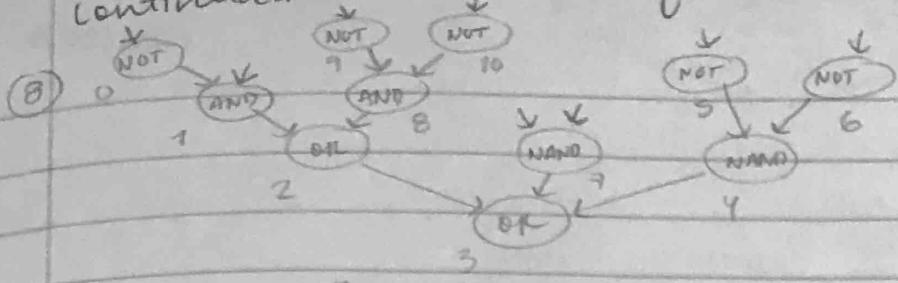




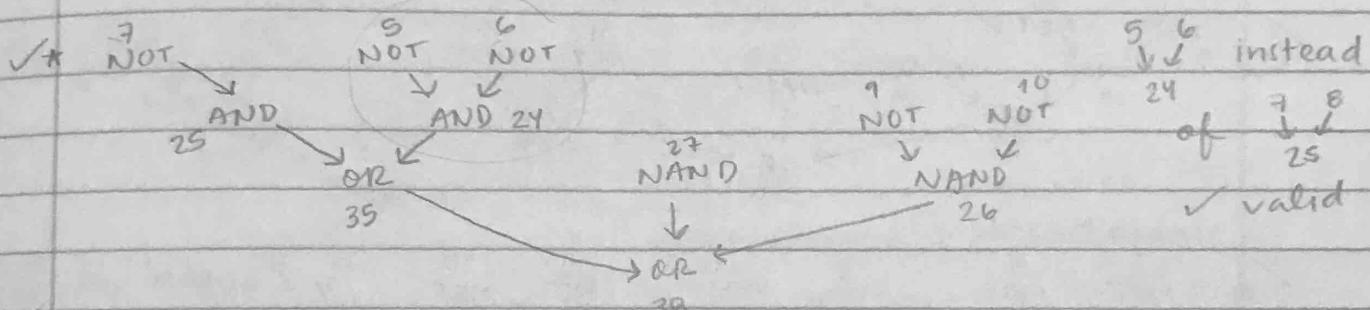
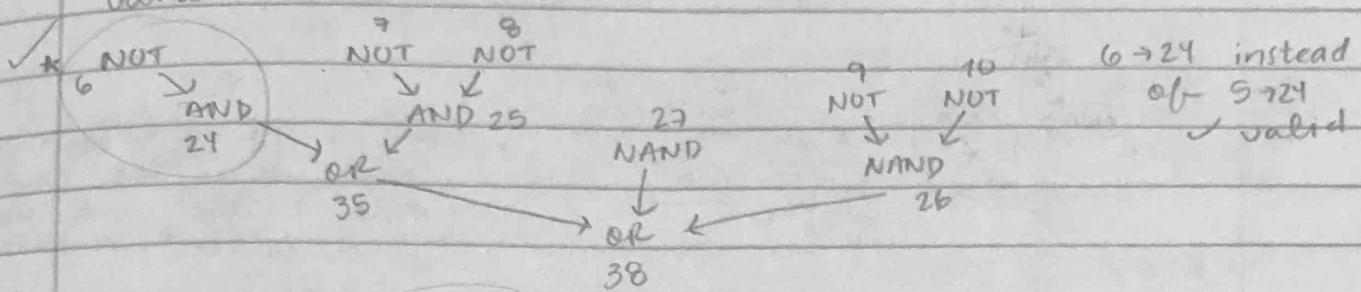
continuation of test after bug fix.

14/01/2020

size 11



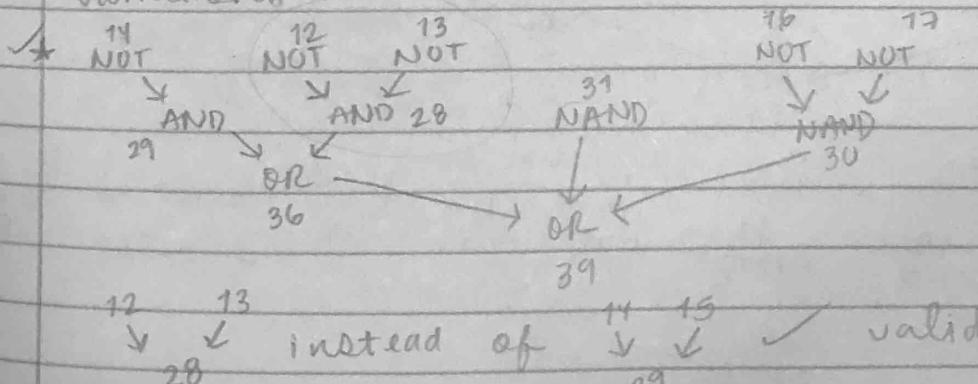
Variations

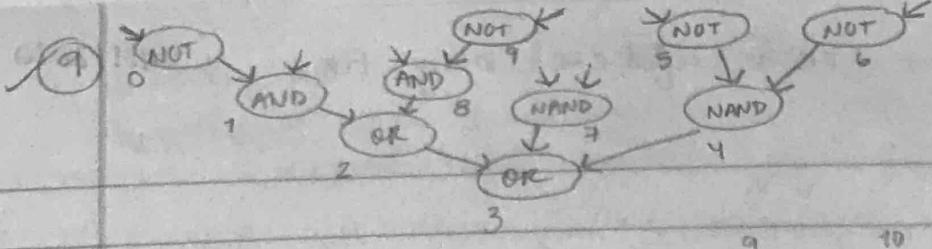


Hand-drawn logic circuit diagram for part b:

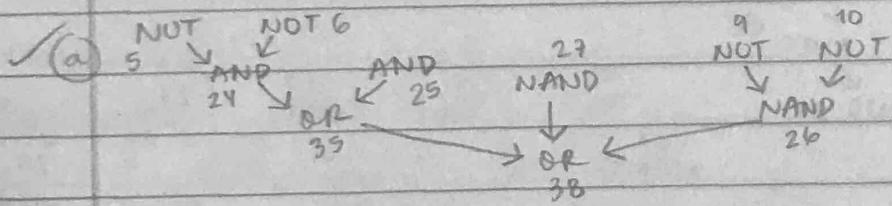
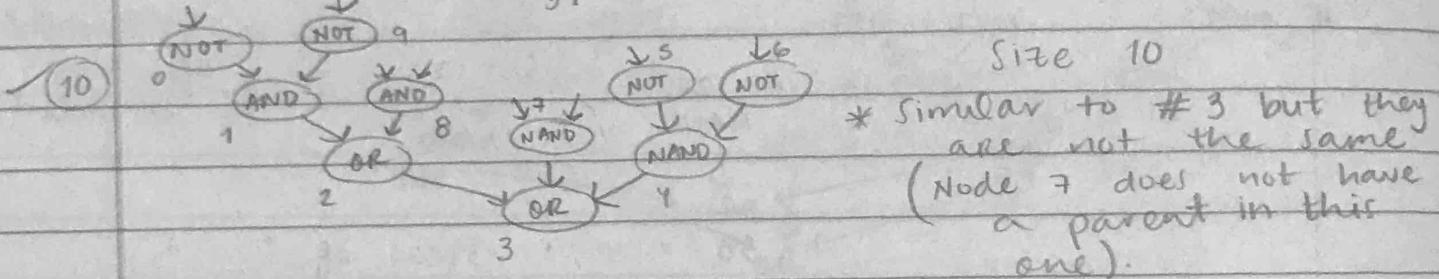
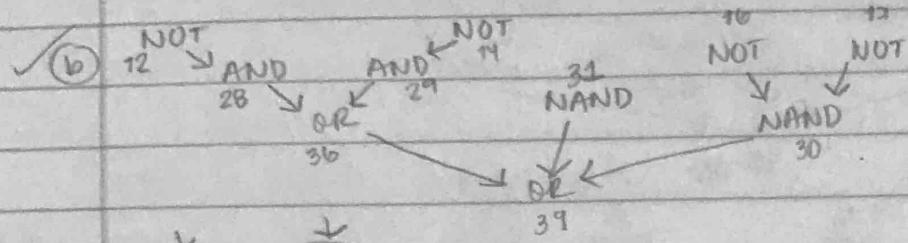
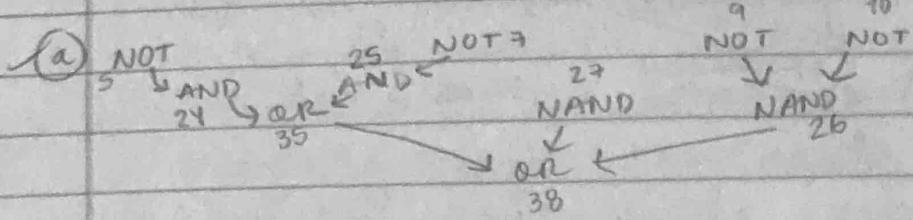
- Inputs: 12, 14, 15, 16, 17.
- NOT gates (labeled 12, 14, 15) have outputs 28, 29, 30 respectively.
- AND gate (labeled 28) has inputs 12 and 28, output 36.
- AND gate (labeled 29) has inputs 14 and 29, output 31.
- NAND gate (labeled 31) has inputs 29 and 30, output 39.
- OR gate (labeled 36) has inputs 36 and 39, output 37.
- NOT gate (labeled 16) has input 30, output 17.
- NAND gate (labeled 30) has inputs 30 and 17, output 17.

Variations

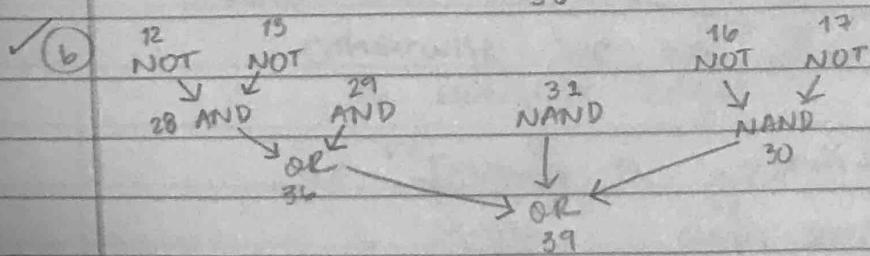
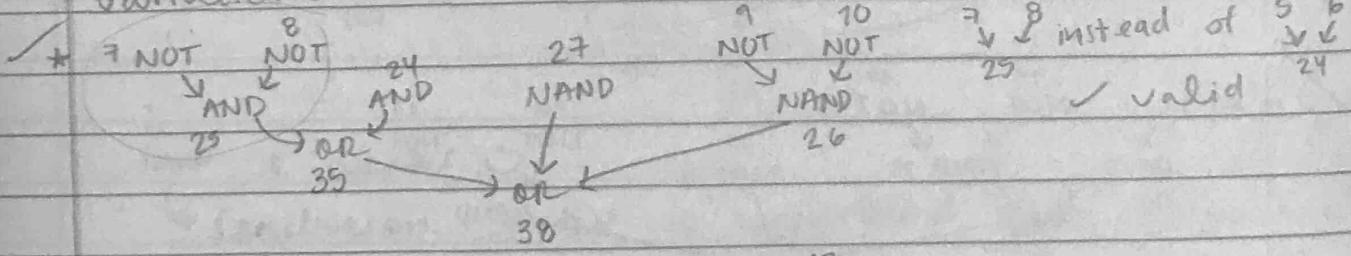




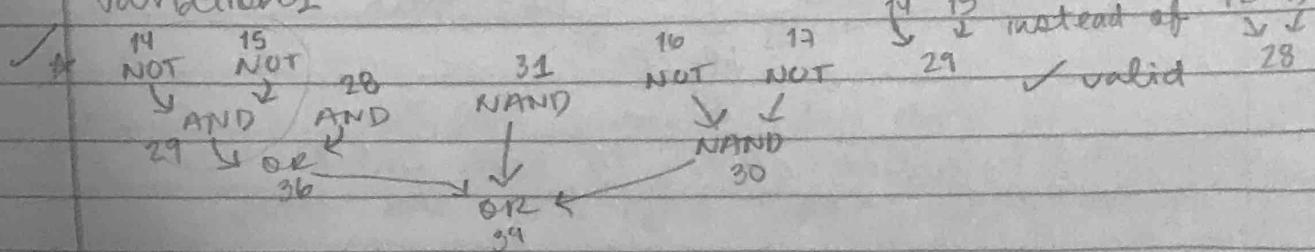
Size 10
14/01/2020



Variations

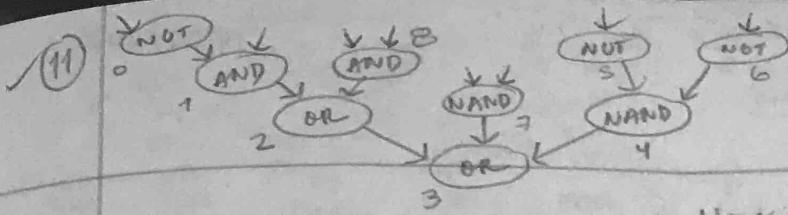


Variations

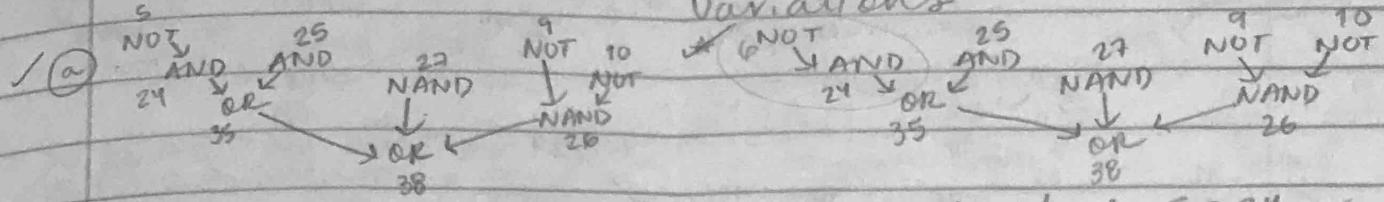


Size 9

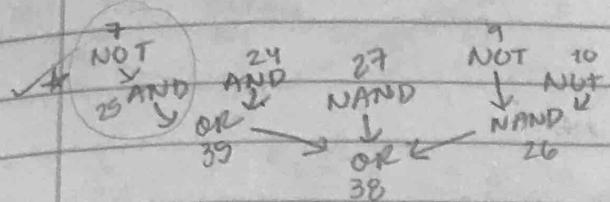
14/01/2020



Variations

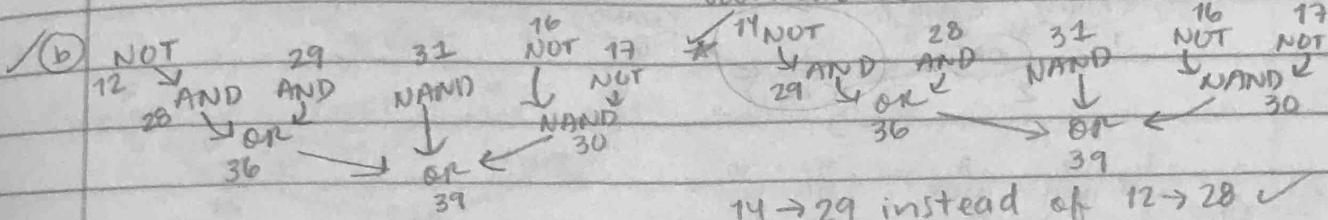


6 → 24 instead of 5 → 24 ✓

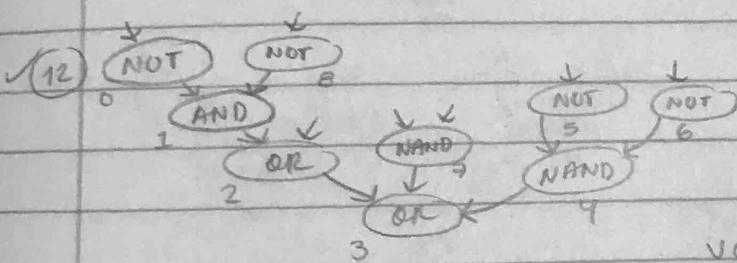


7 → 25 instead of 5 → 24 ✓

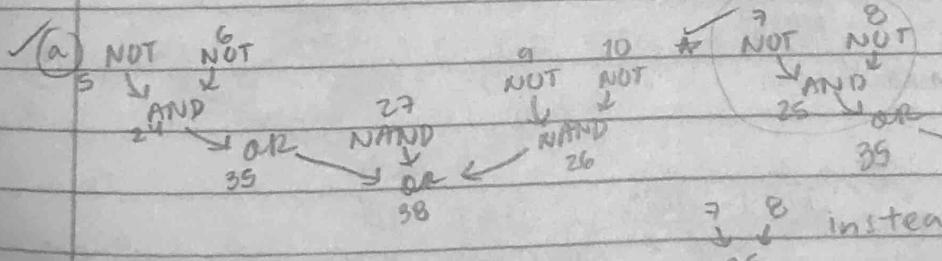
Variations



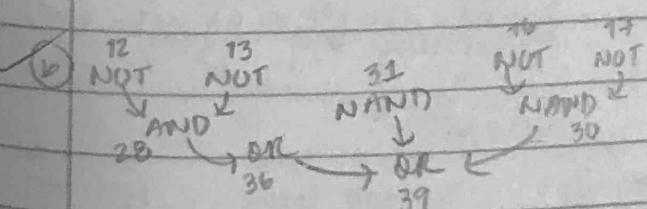
14 → 29 instead of 12 → 28 ✓



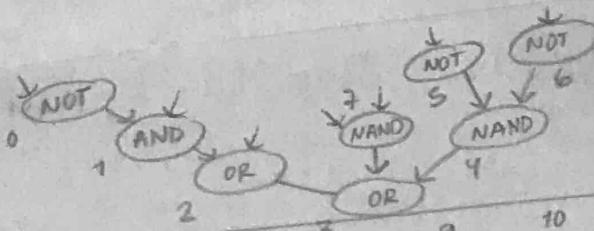
Size 9



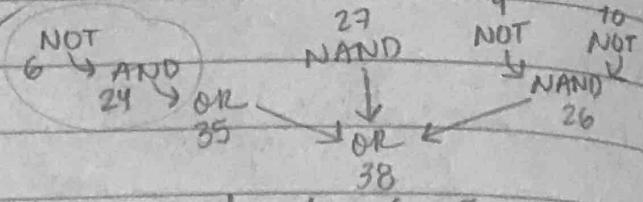
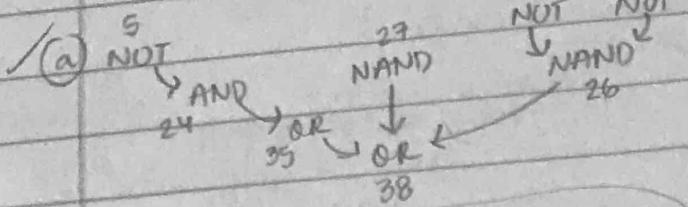
7 → 8 instead of 5 → 6 ✓



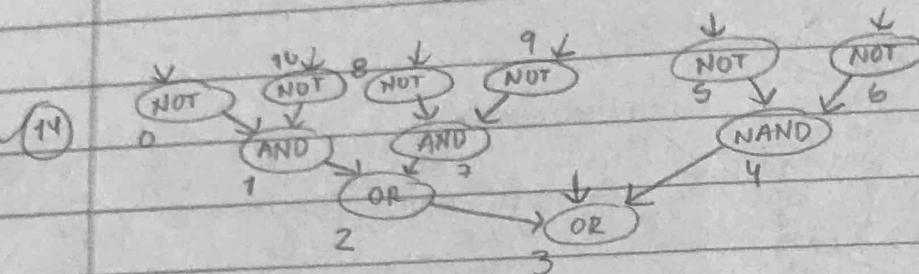
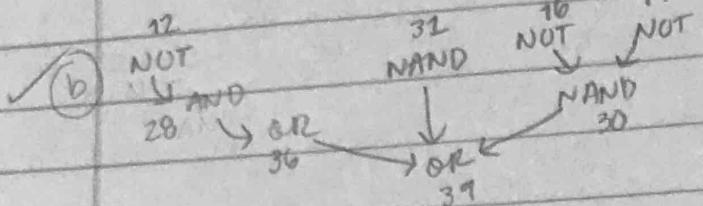
(13) Size 8



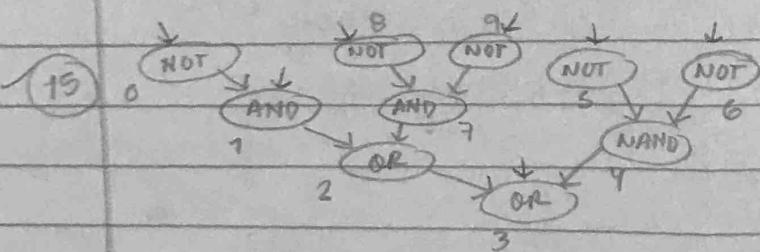
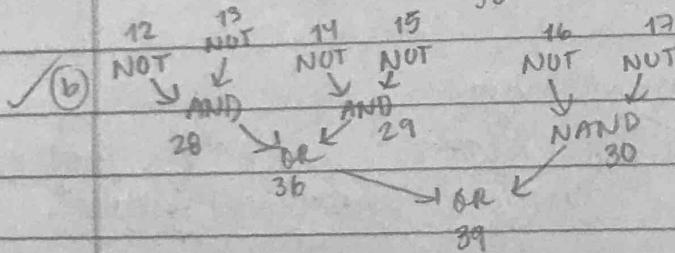
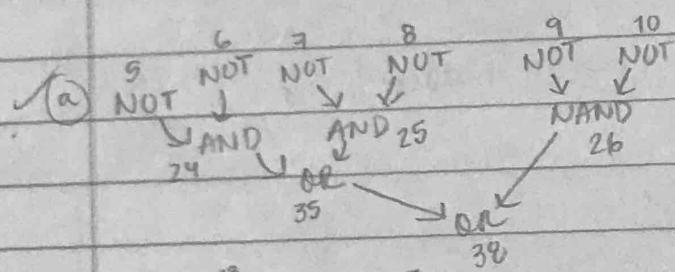
Variations



$6 \rightarrow 24$ instead of $5 \rightarrow 24$ ✓
 $7 \rightarrow 25$ instead of $5 \rightarrow 24$ ✓

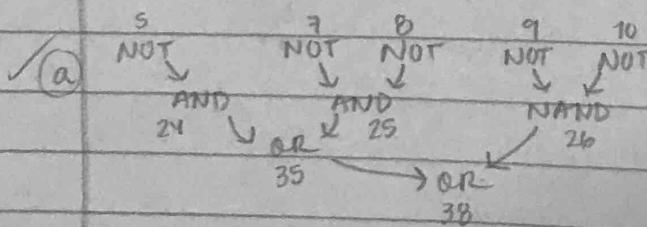


Size 11

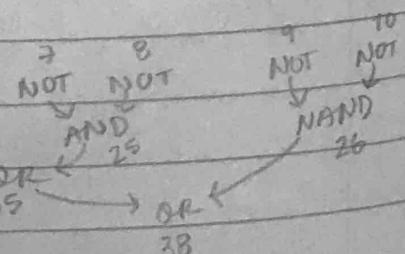


Size 10

* Looks like subgraph #8
but they are not. Look
closely.

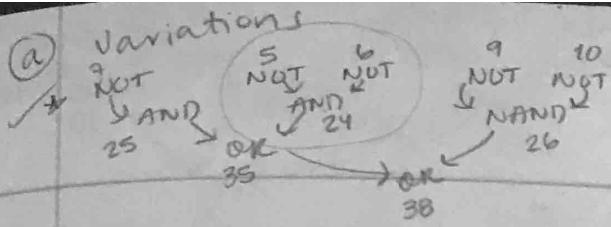


Variations

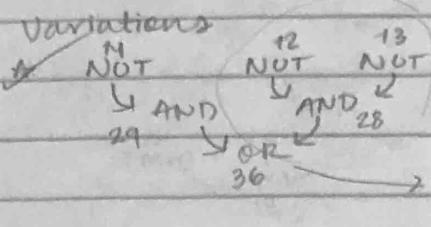
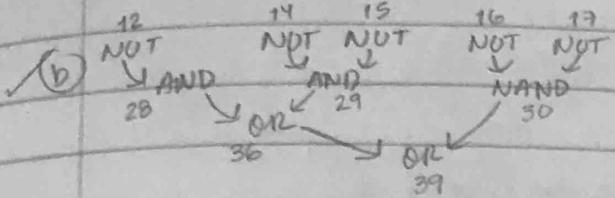


$6 \rightarrow 24$ instead of $5 \rightarrow 24$ ✓

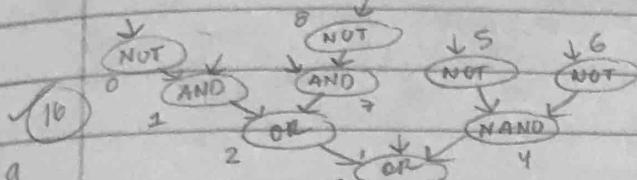
14/01/2020



5 ↓ 6 instead of 7 ↓ 8 ✓
24 ↓ 25

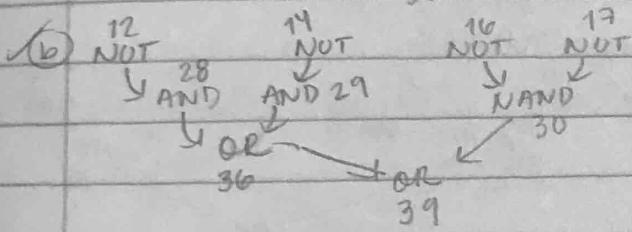
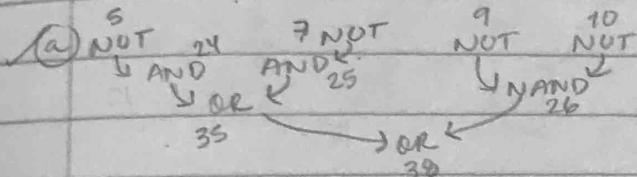


12 ↓ 13 instead of 14 ↓ 15 ✓
28 ↓ 29

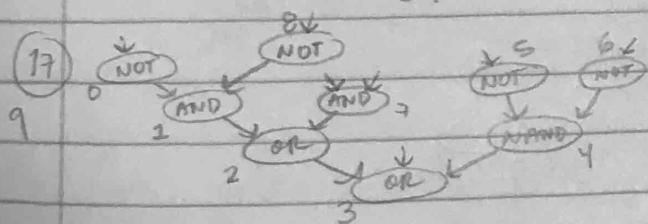


* Looks like subgraph #9
but they are different

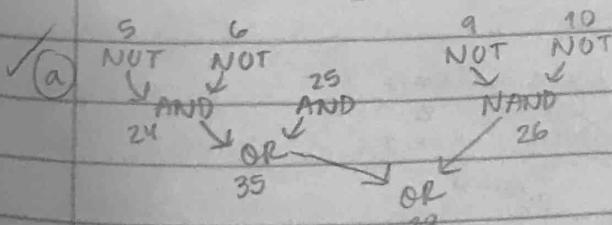
size 9



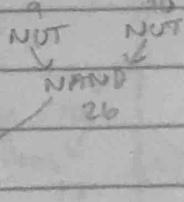
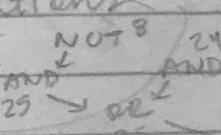
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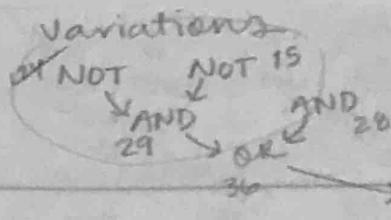
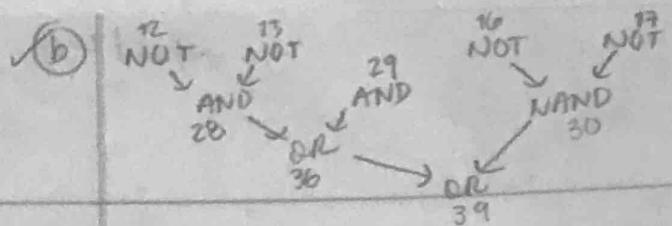
* Looks like subgraph #10
but they are different



Variations

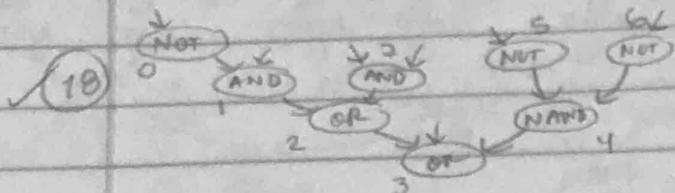


7 ↓ 8 instead of 5 ↓ 6 ✓
25 ↓ 24



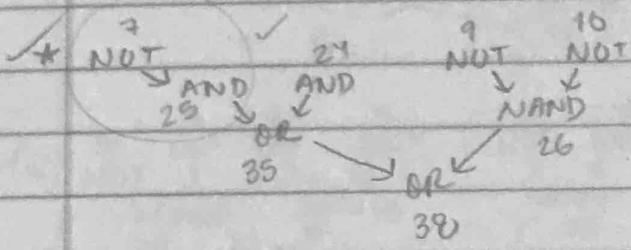
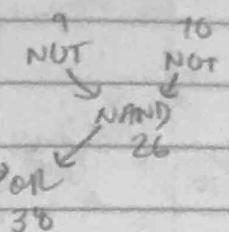
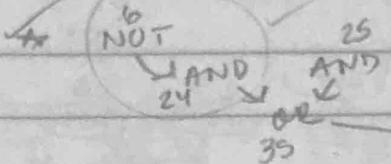
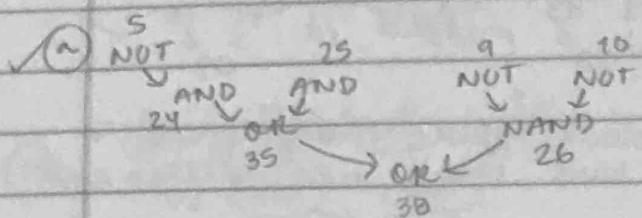
10 NOT 16 NOT 21
NAND 30
19/01/2020

14 15 instead of 12 13
29 39 28 ✓

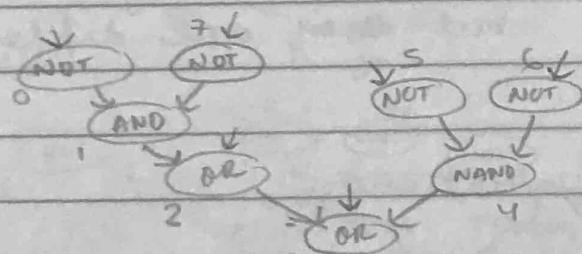
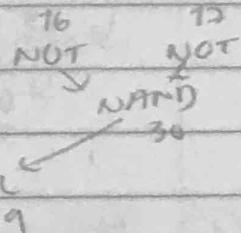
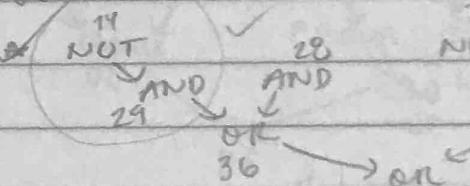
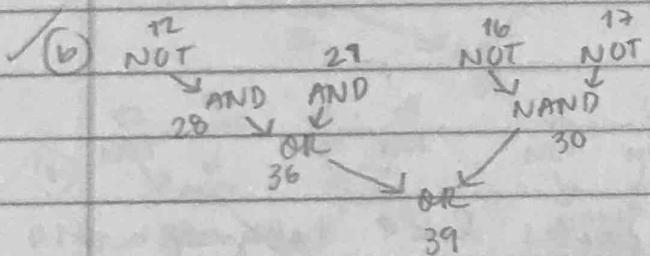


Size 8

Variations

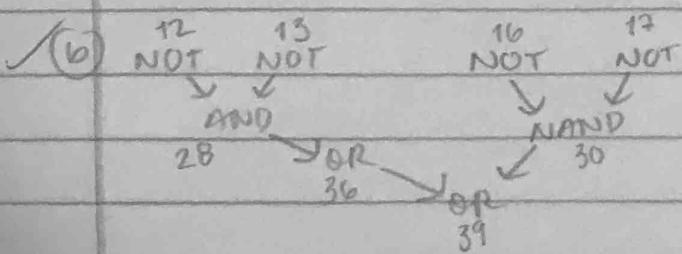
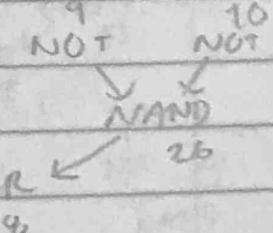
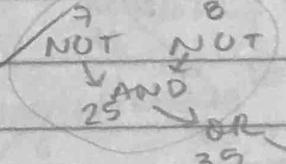
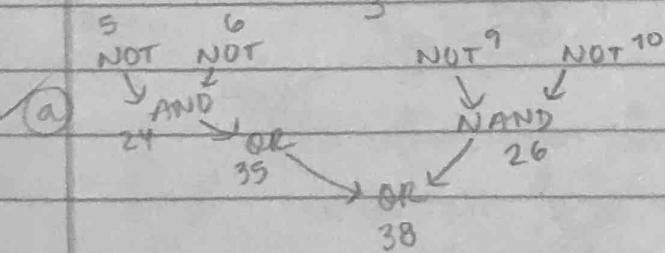


Variations



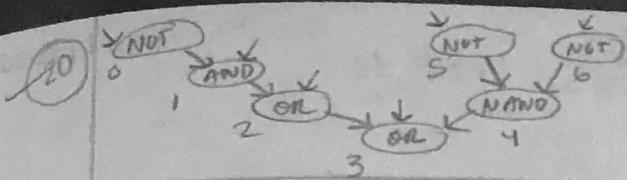
Size 8

Variations

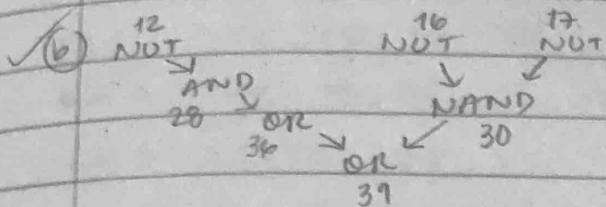
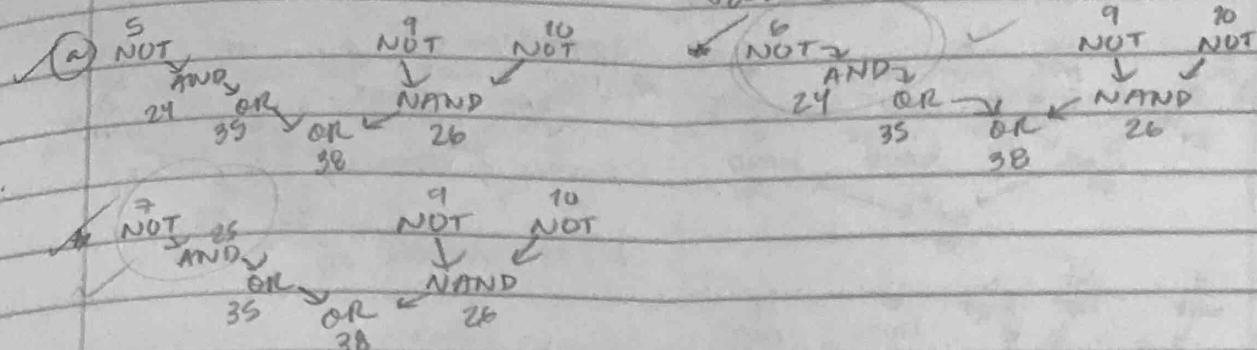


14/10/2020

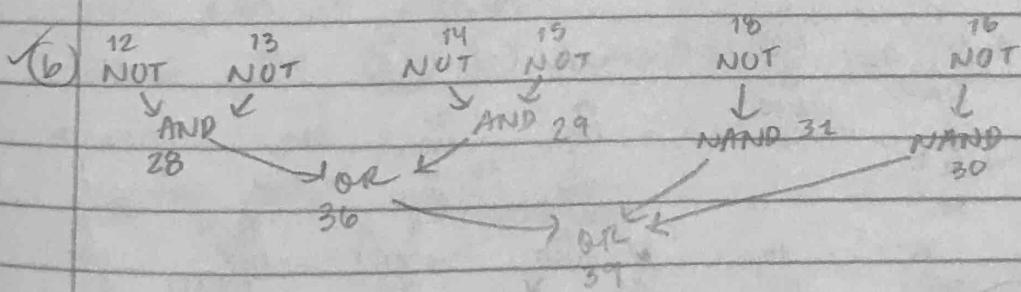
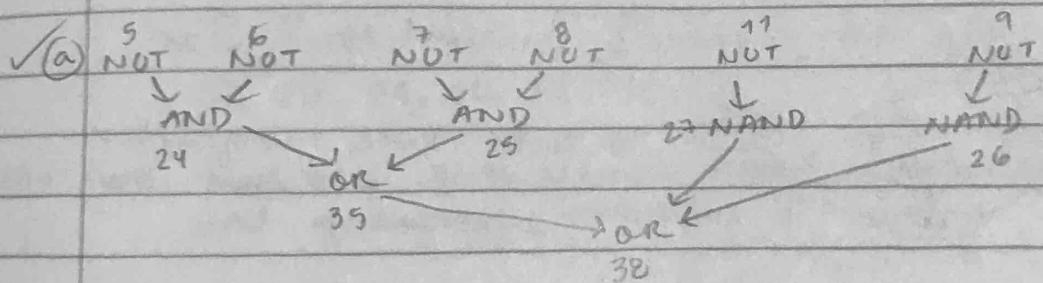
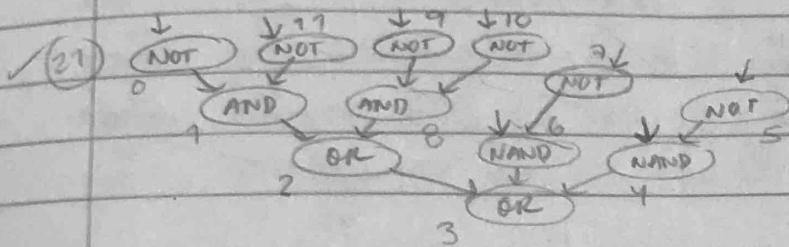
Size 7



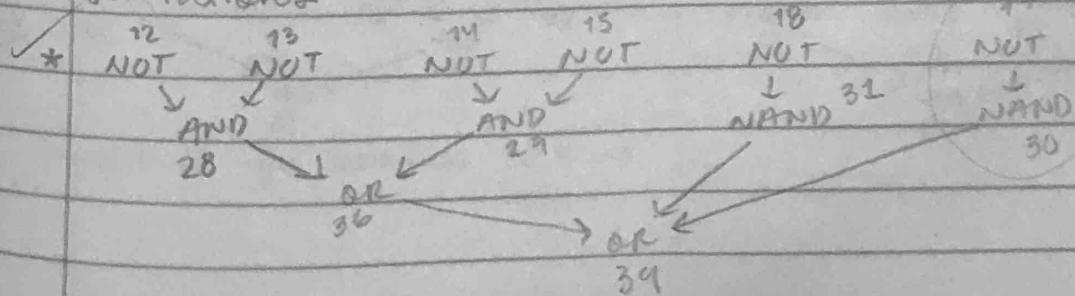
Variations



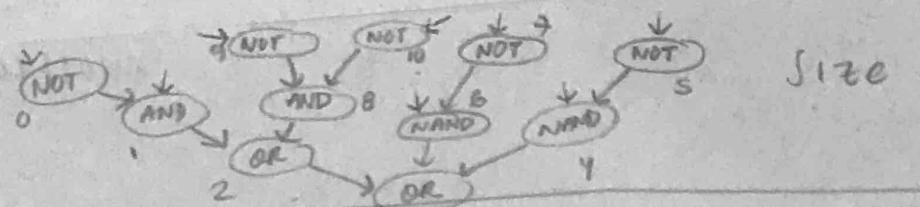
Size 12



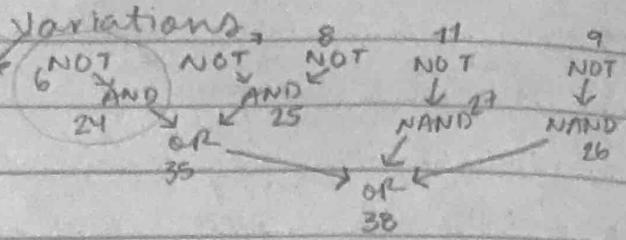
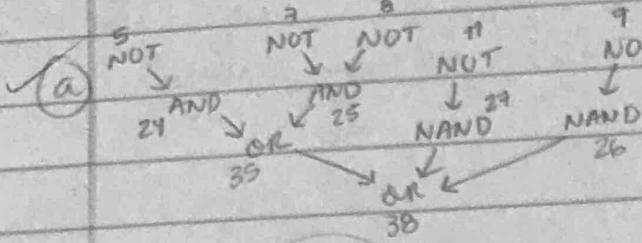
Variations



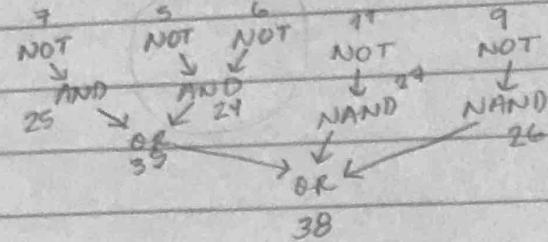
14/02/2020



size 12

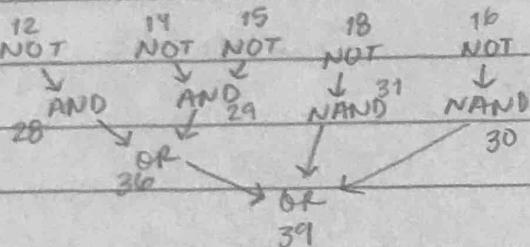


$6 \rightarrow 24$ instead of $5 \rightarrow 24$ ✓



$5 \rightarrow 6$ instead of $7 \rightarrow 8$

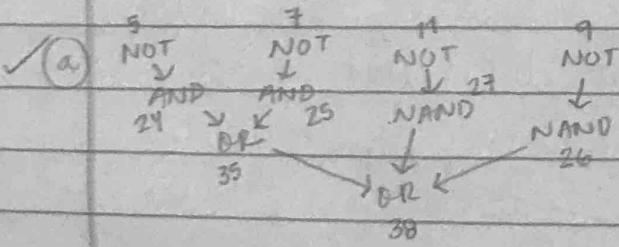
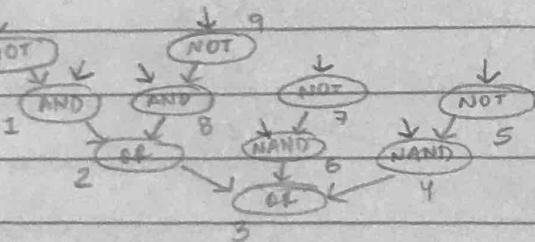
Variations



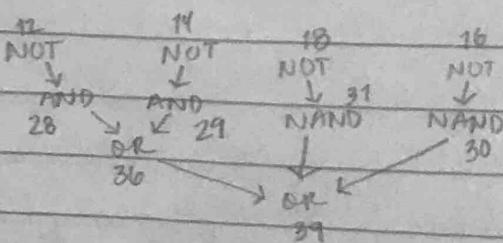
$12 \rightarrow 13$ instead of $14 \rightarrow 15$

* Looks like subgraphs
#9 & #16 but they are different

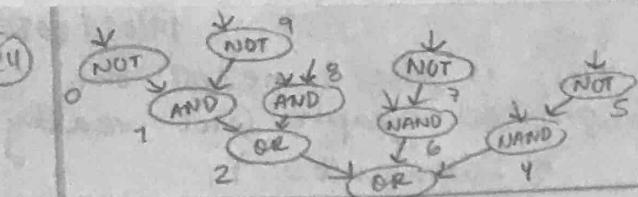
size 10



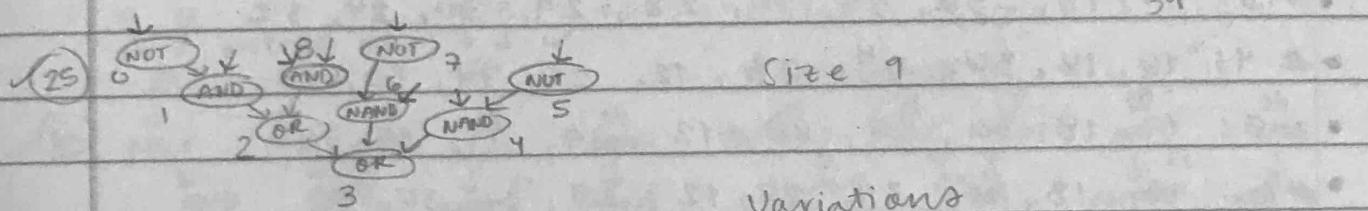
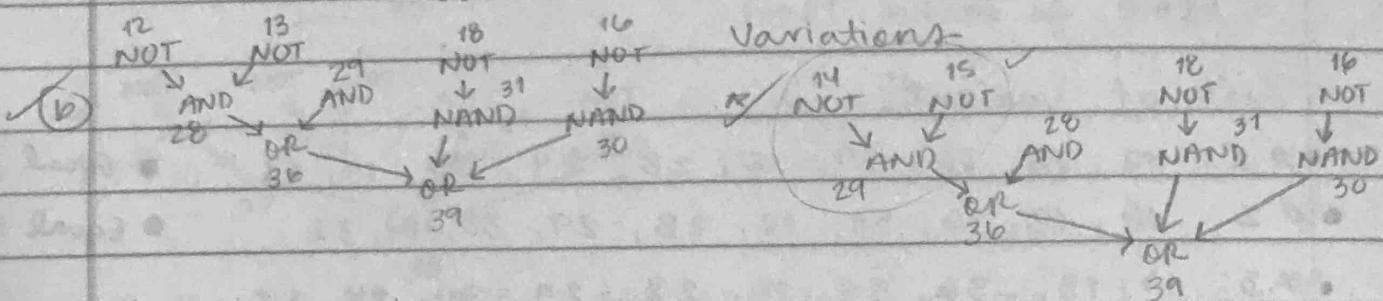
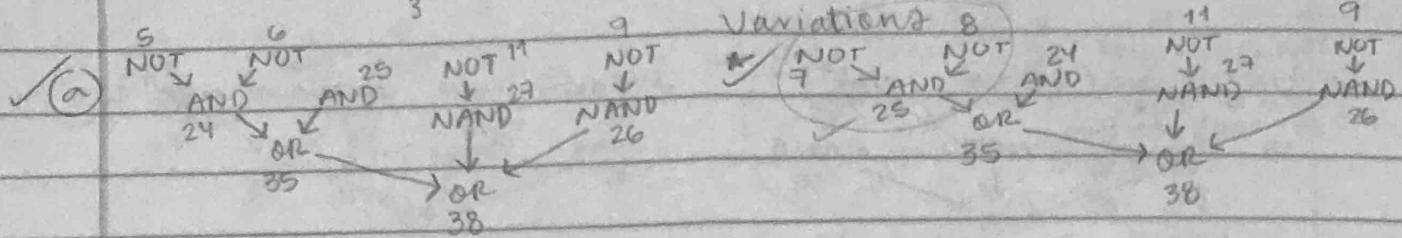
Variations



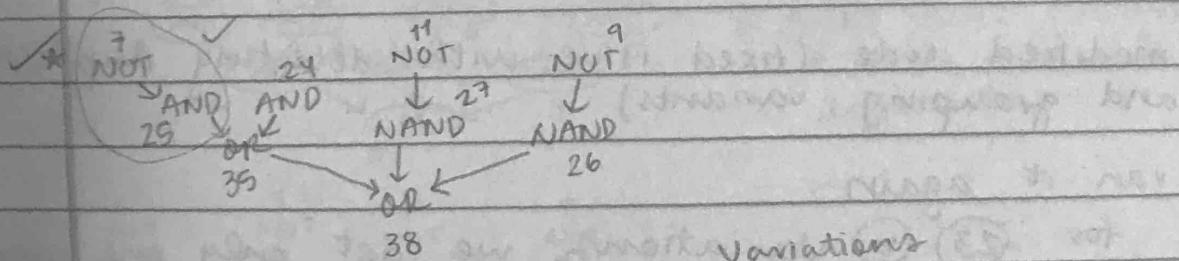
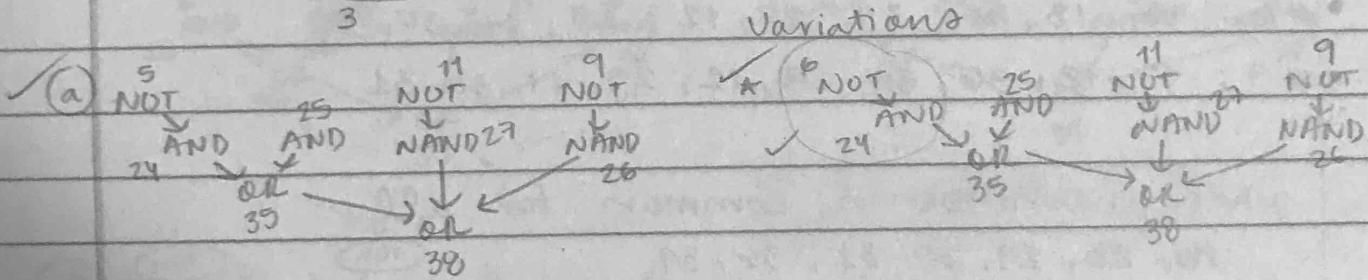
$17 \rightarrow 30$ instead of $16 \rightarrow 30$ ✓



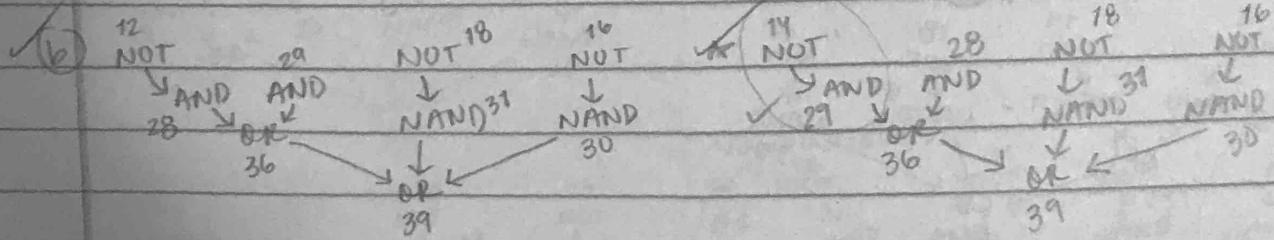
15/01/2020
* looks like subgraphs # 10 and # 17, but they are different.

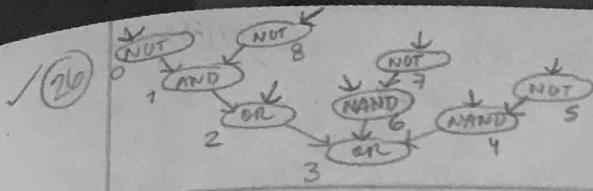


Size 9



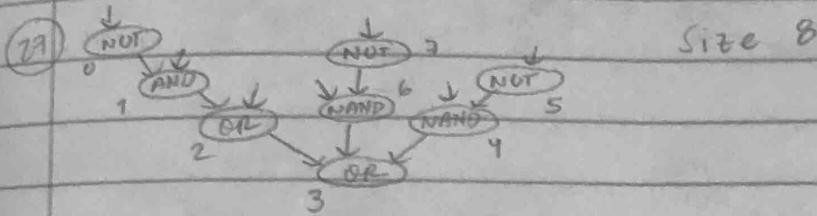
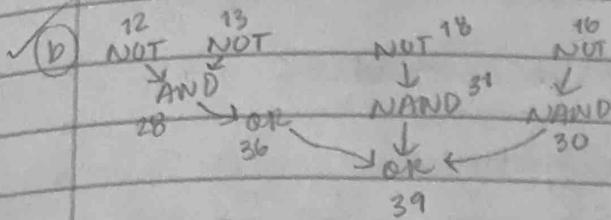
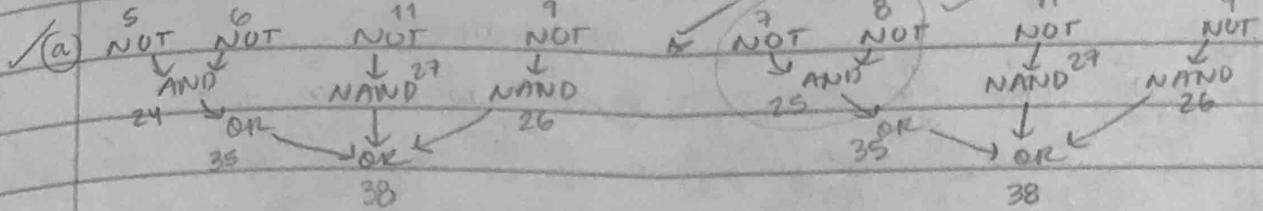
Variations



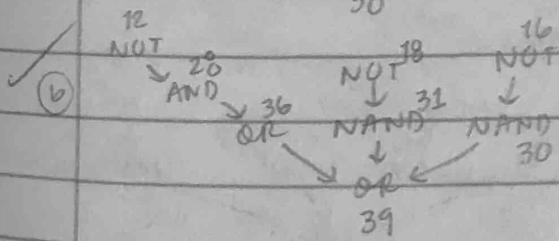
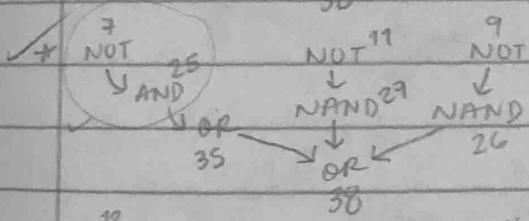
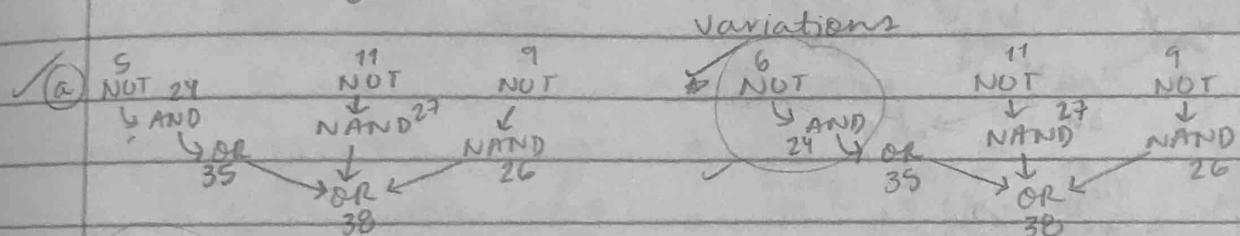


Size 9

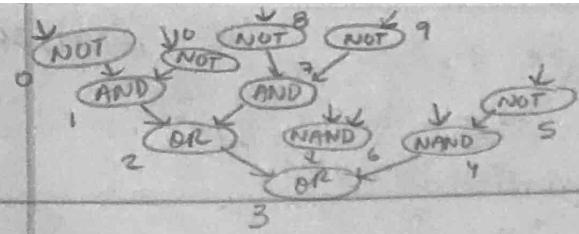
15/01/2020



Size 8



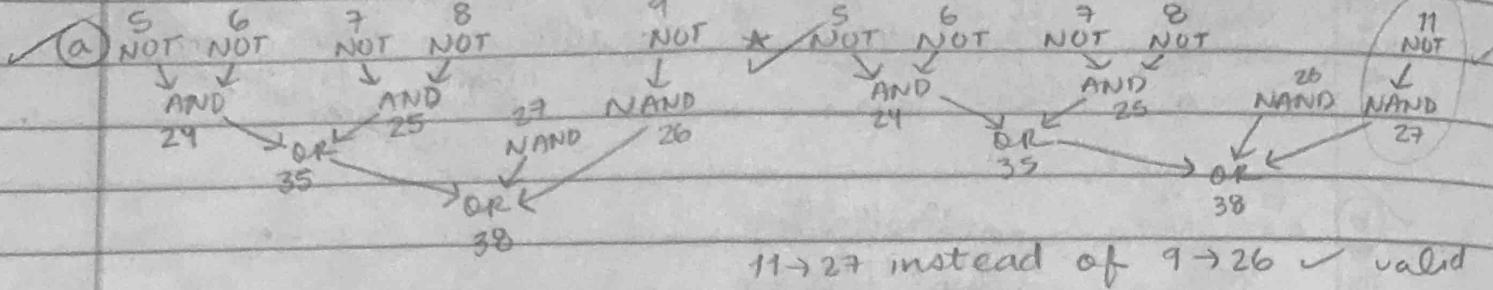
(28)



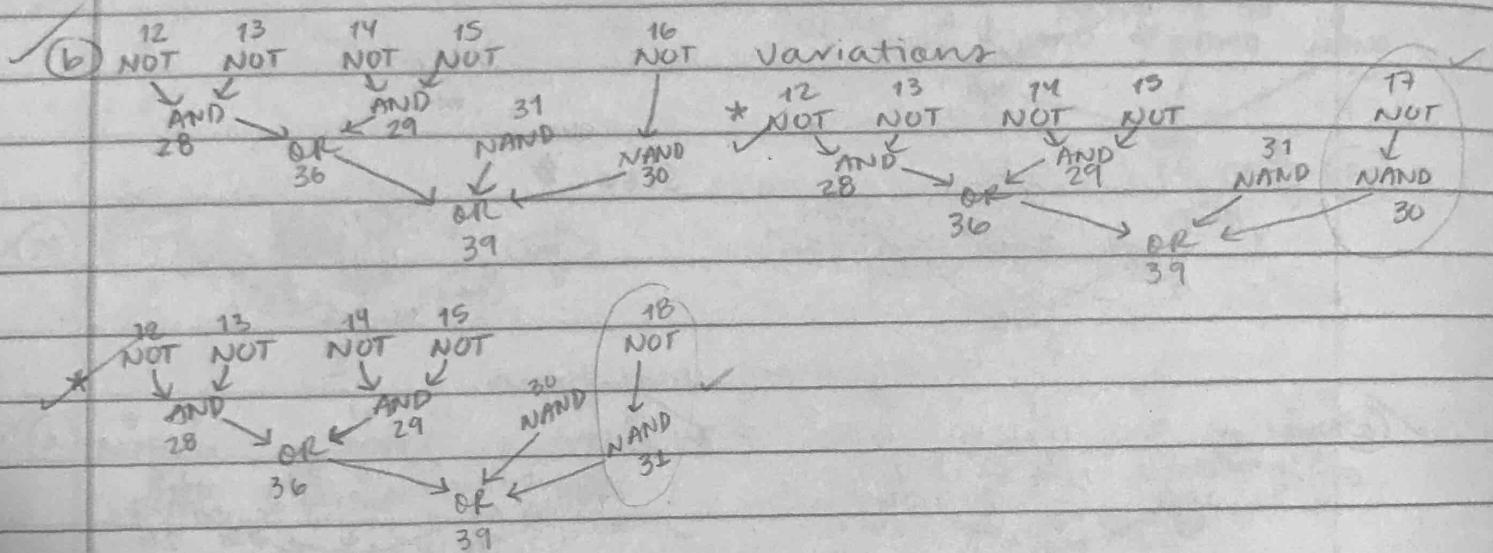
Size 11

15/01/2020

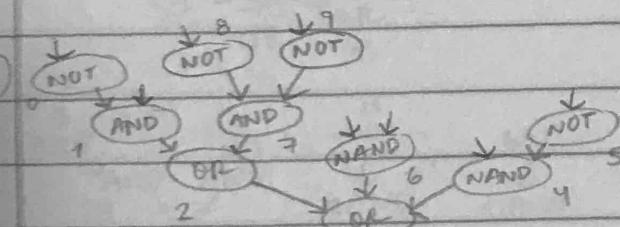
Variations



11 → 27 instead of 9 → 26 ✓ valid

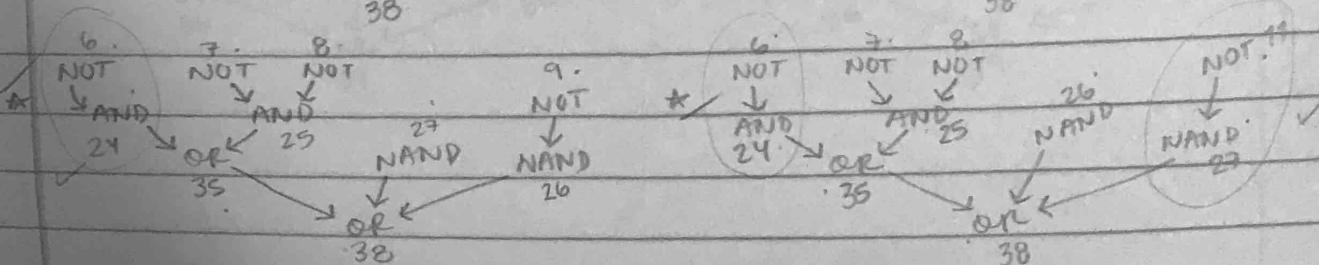
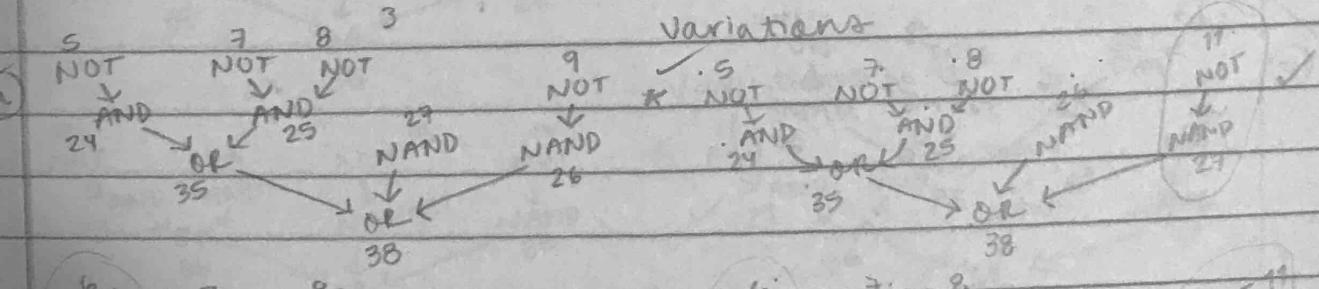


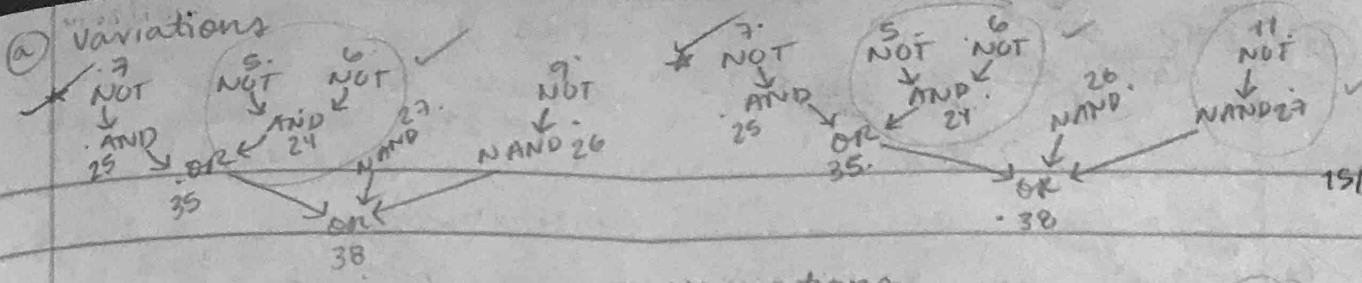
(29)



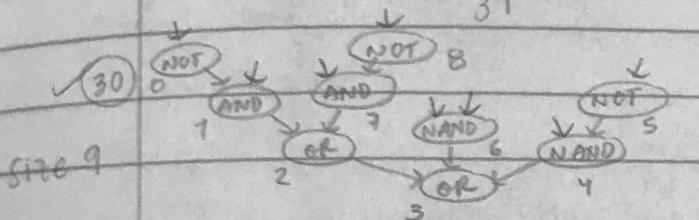
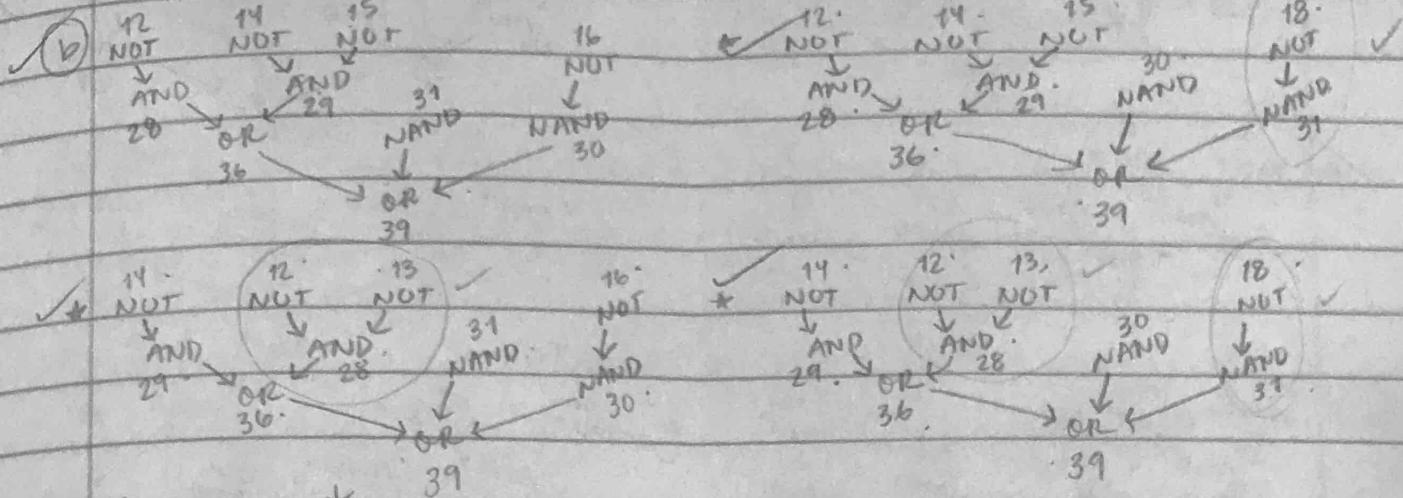
Size 10

(a)

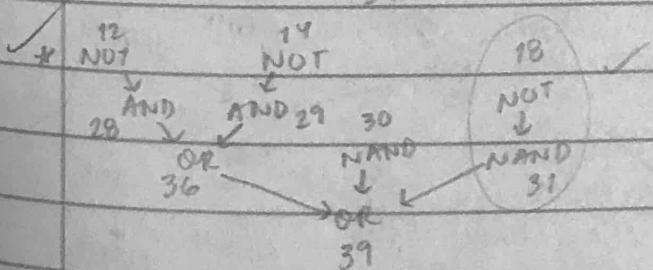
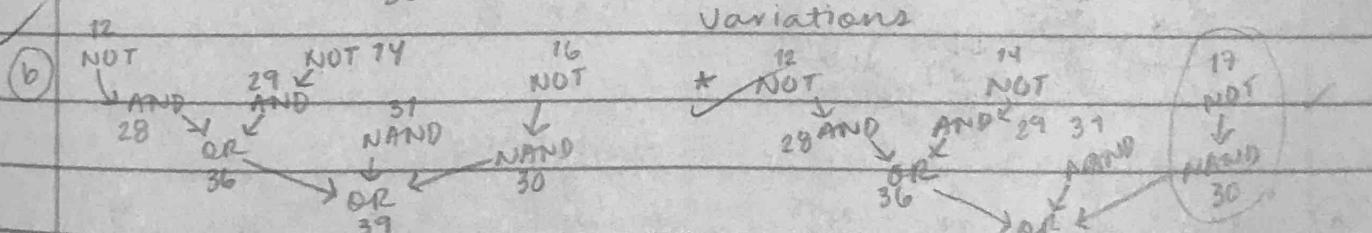
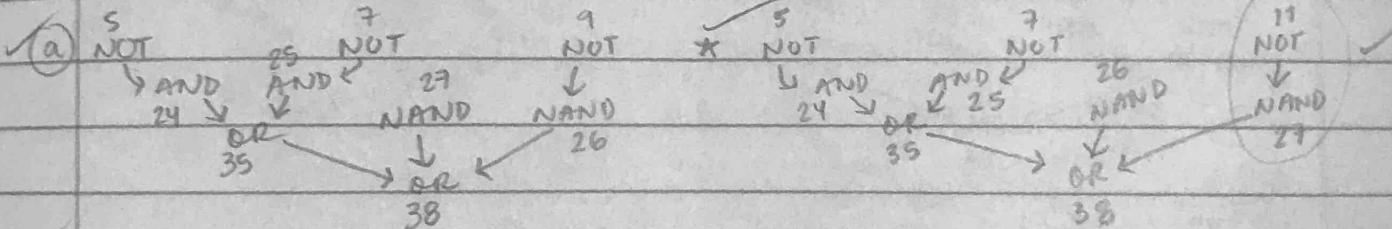




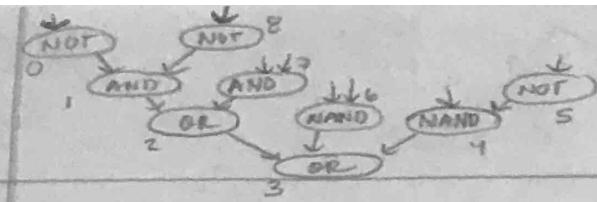
15/07/2020



* Looks like #9, #16 and #23, but they are different.



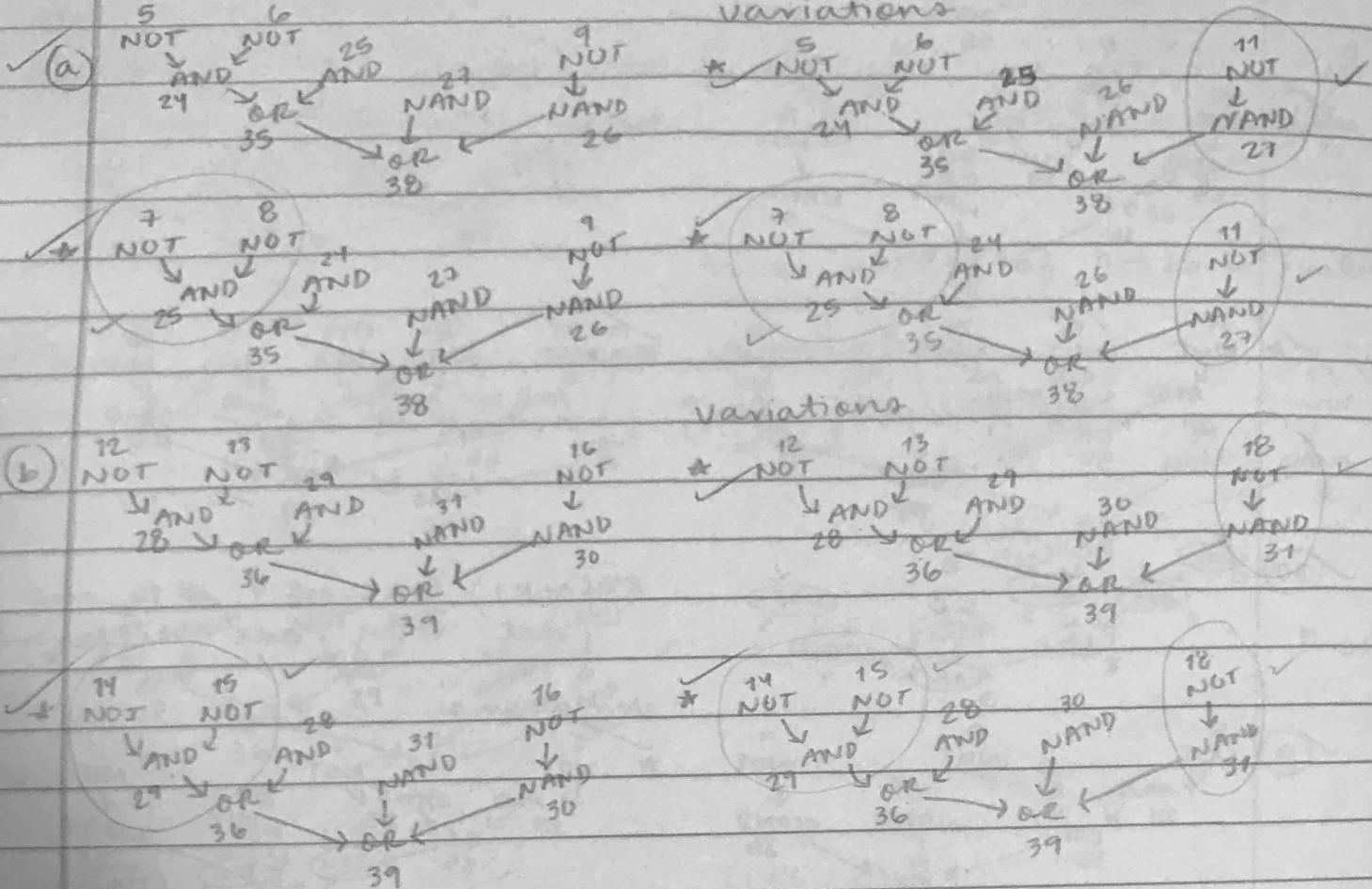
31



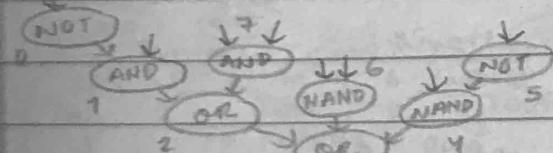
Size 9

15/01/2020

* Looks like #10, #17 & #24, but they are different



32



Size 8

Variations

