Cl Tutorial 8

# Exercise 1

Convert to CNF

, so

And again

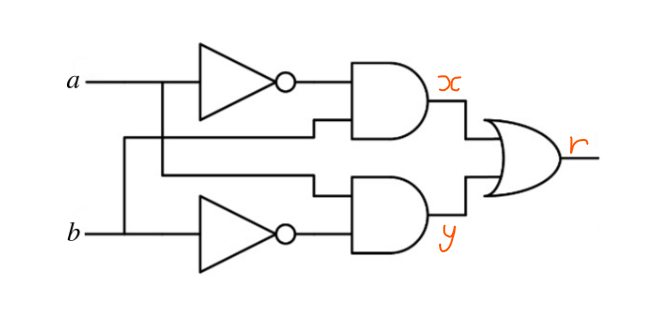
, so

so

Removing brackets,

# Exercise 2

Give an equivalent logical expression:

Apply the Tseytin transformation to give an equisatisfiable CNF expression:

Assume r is true:

Merge:

# Exercise 3

Apply the Tseytin transformation to the expression

to give an equisatisfiable CNF expression.

, so

Again,

Removing brackets:

# Exercise 4

1. 2
2. 6
3. 3

# Exercise 5

1. 3
2. 5