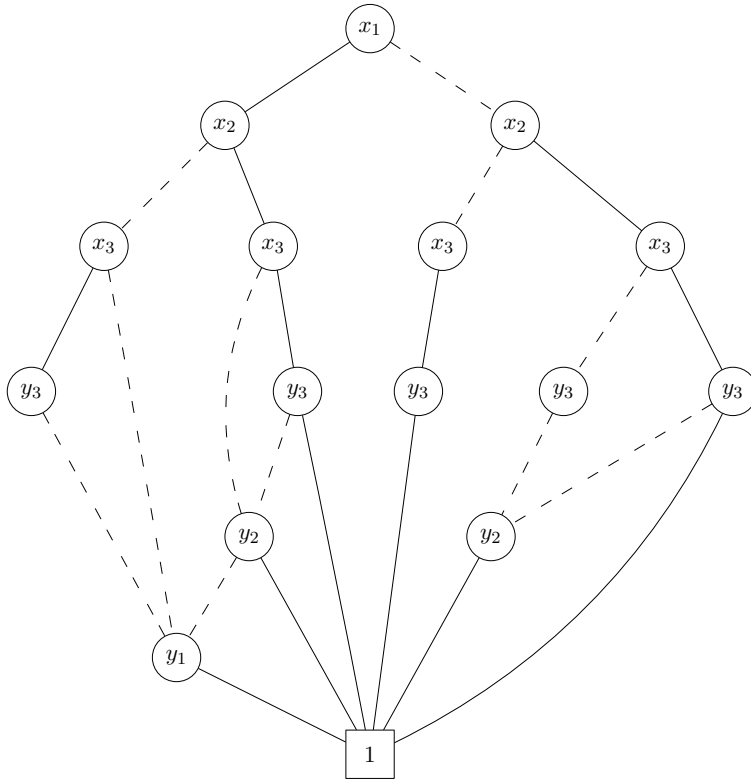


Verification

Please write the names of all group members on the solutions you hand in.

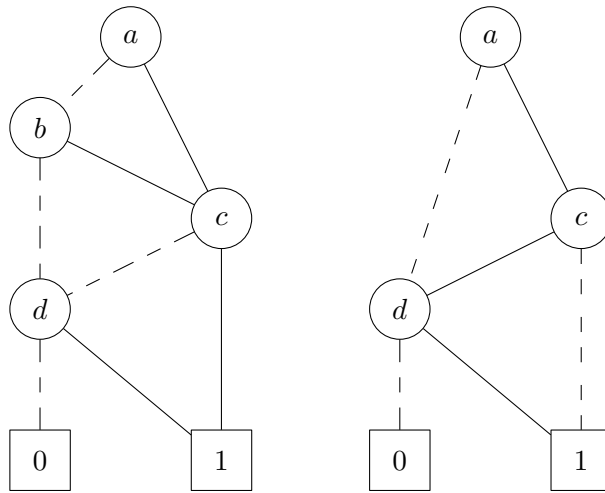
Problem 1: Boolean Functions

Given an ROBDD as follows, determine the boolean function $f(x_1, x_2, x_3, y_1, y_2, y_3)$ it represents.
 (Hint: find a better variable ordering first)



Problem 2: ROBDD operations

- Compute $APPLY(\vee, F, G)$ for the following ROBDDs:

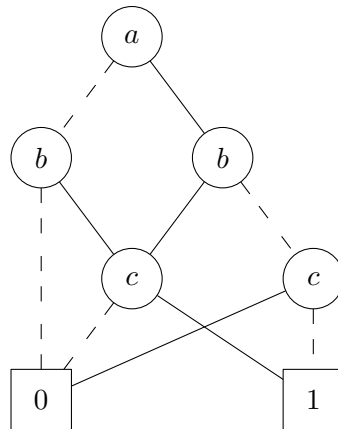


F

G

The result should be an ROBDD.

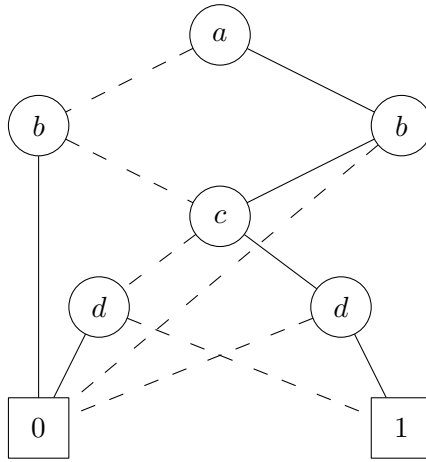
- Compute $RESTRICT(H, b, 1)$, given the ROBDD below:



H

The result should be an ROBDD.

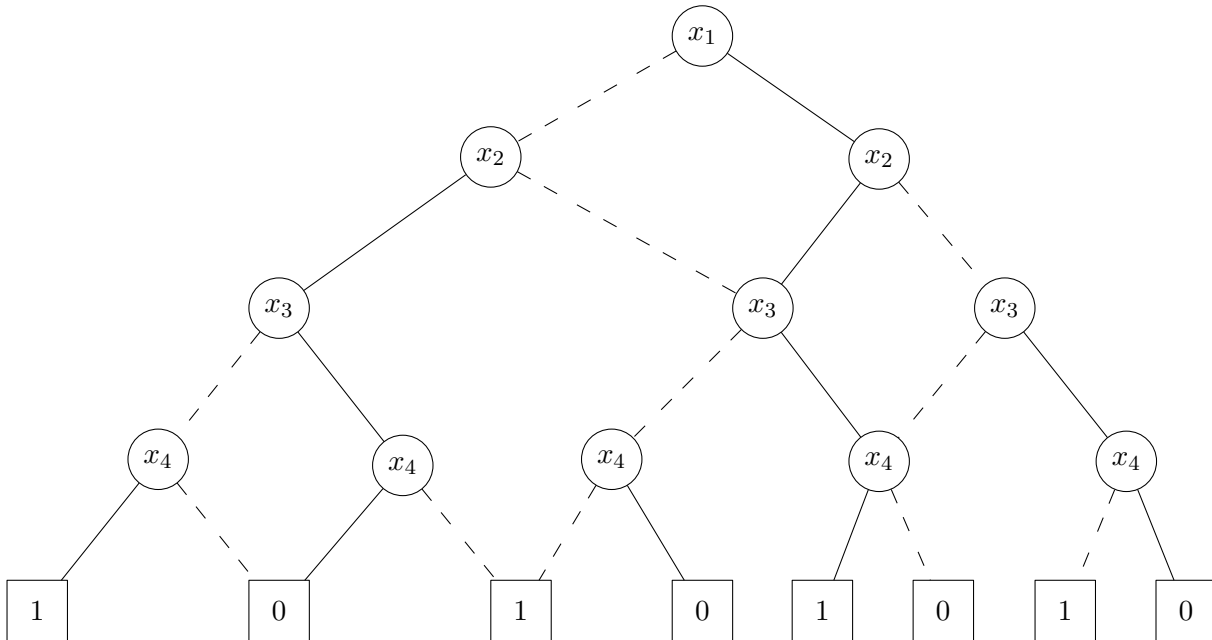
- Compute $ABSTRACT: \exists a. (\exists d. f(a, b, c, d))$ in the form of ROBDD for the f function defined by the ROBDD below:



The result should be an ROBDD.

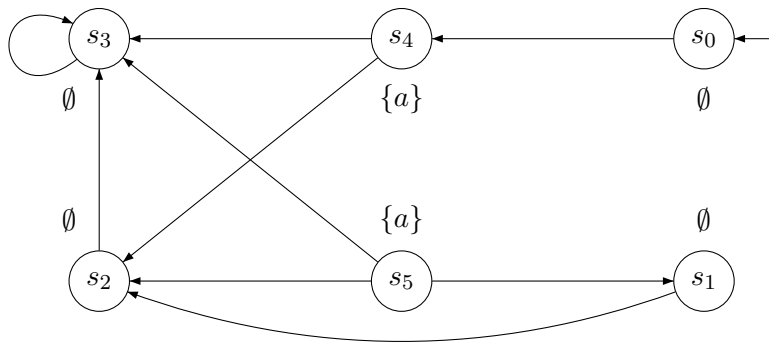
Problem 3: OBDD reduction

Reduce the following OBDD:



Problem 4: Transition System

Given a transition system TS as follows:



Encode TS using ROBDDs.