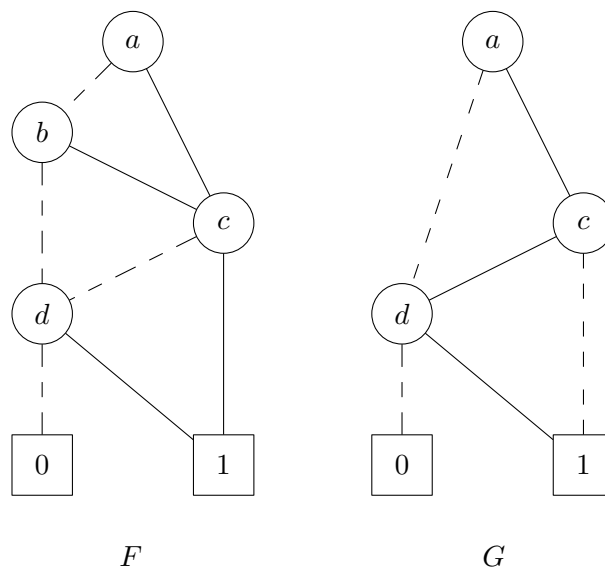


## Verification

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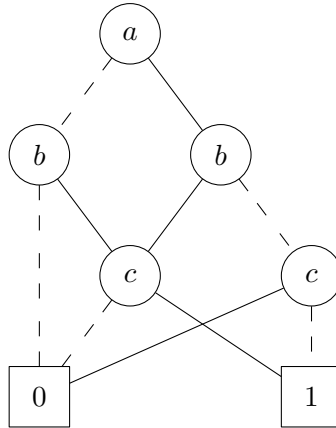
### Problem 1: ROBDD operations [6 Points]

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



The result should be an ROBDD. [2 Points]

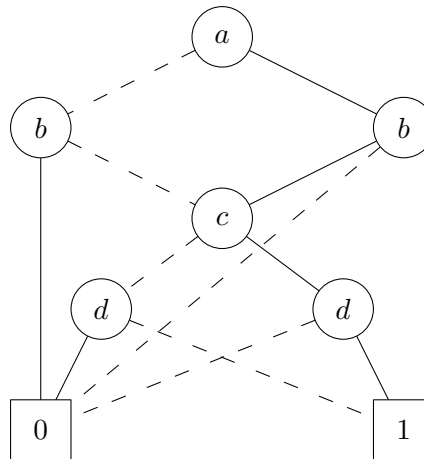
2. Compute  $RESTRICT(H, b, 1)$ , given the ROBDD below:



*H*

The result should be an ROBDD. [2 Points]

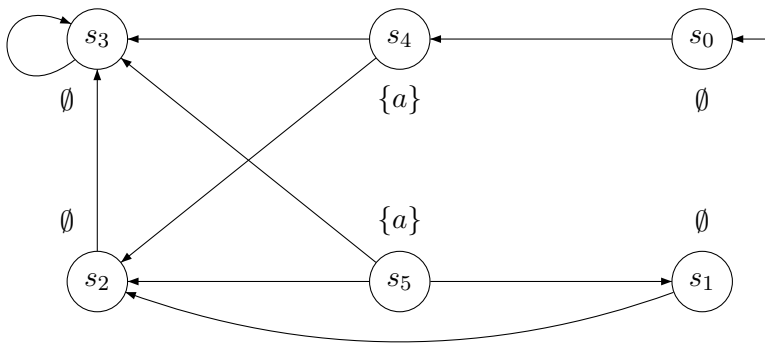
3. Compute *ABSTRACT*:  $\exists a. (\exists d. f(a, b, c, d))$  in the form of ROBDD for the *f* function defined by the ROBDD below:



The result should be an ROBDD. [2 Points]

### Problem 2: Transition System [4 Points]

Given a transition system *TS* as follows:



Encode  $TS$  using ROBDDs.