

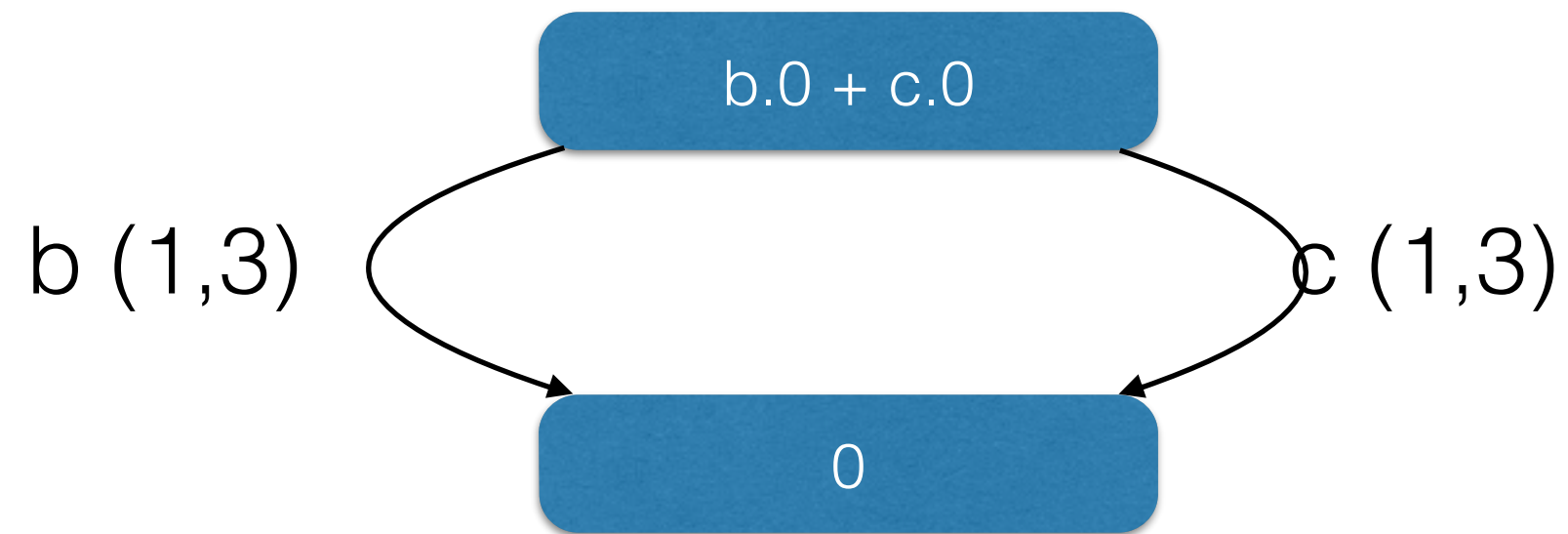
TK1 Theory Exercise 8

Group 21

Chen Zhen, Feng Letian, Li Kecen, Liu Shule, Zhang Xin

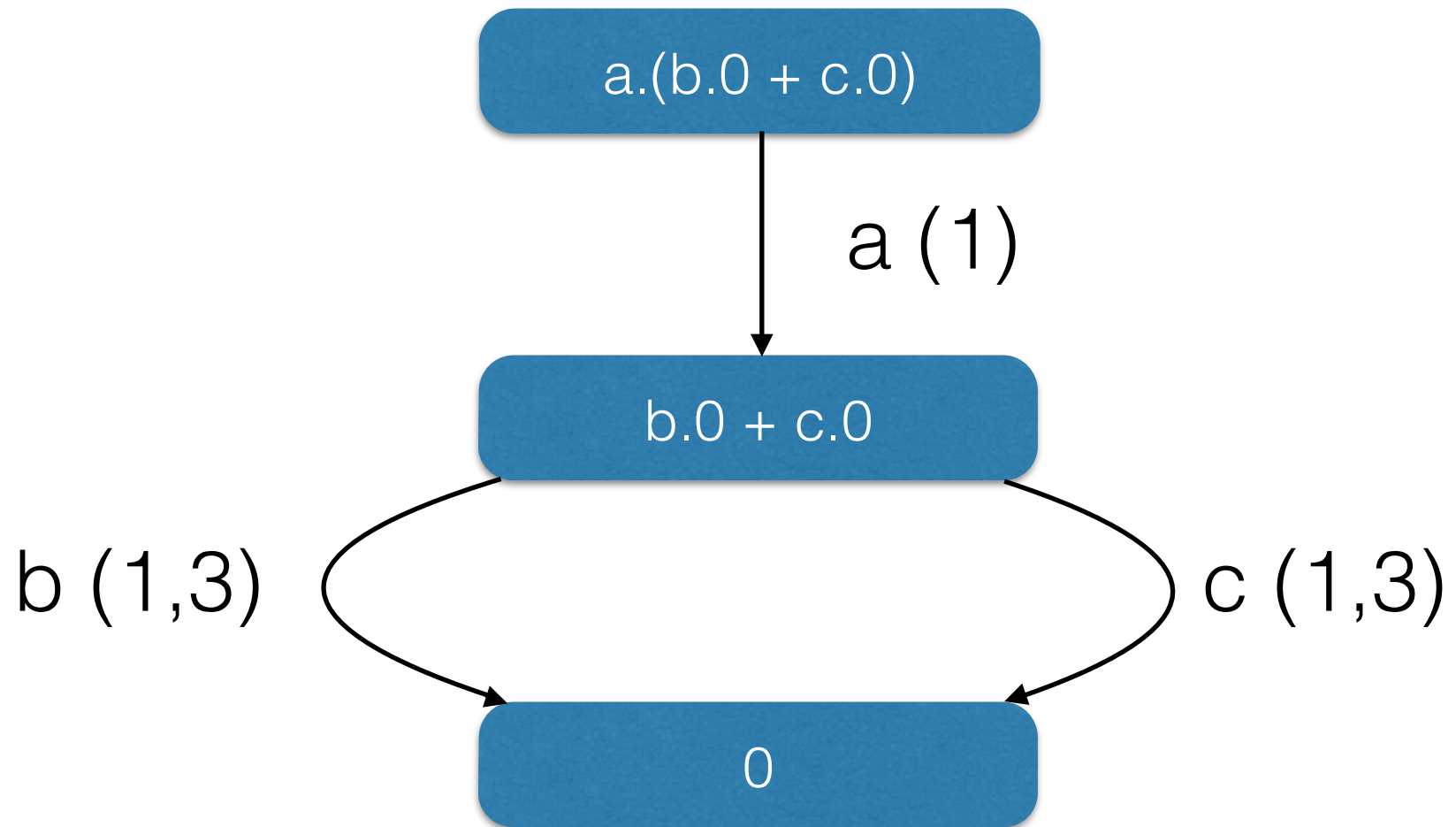
Task 1

P1)

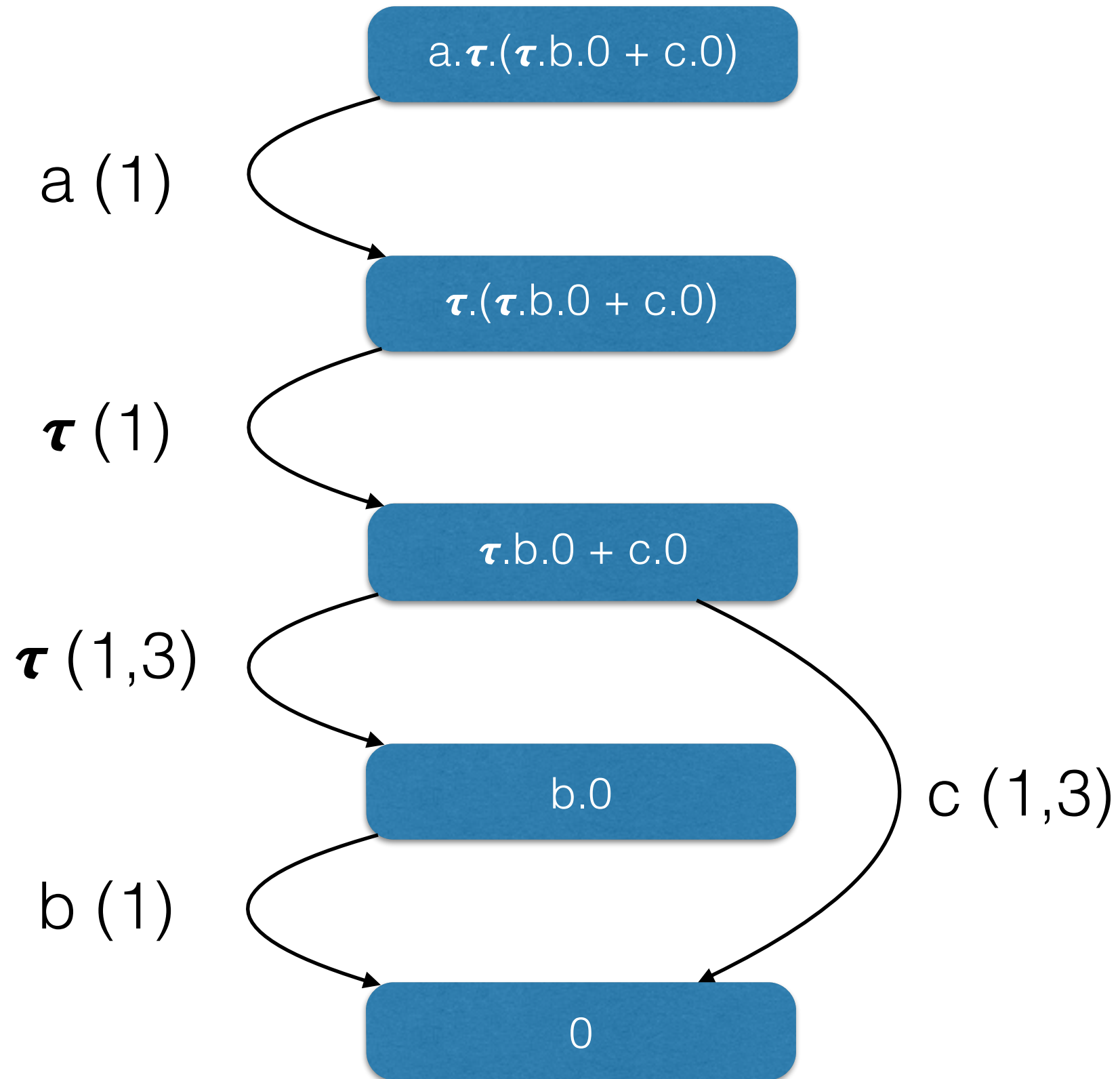


Task 1

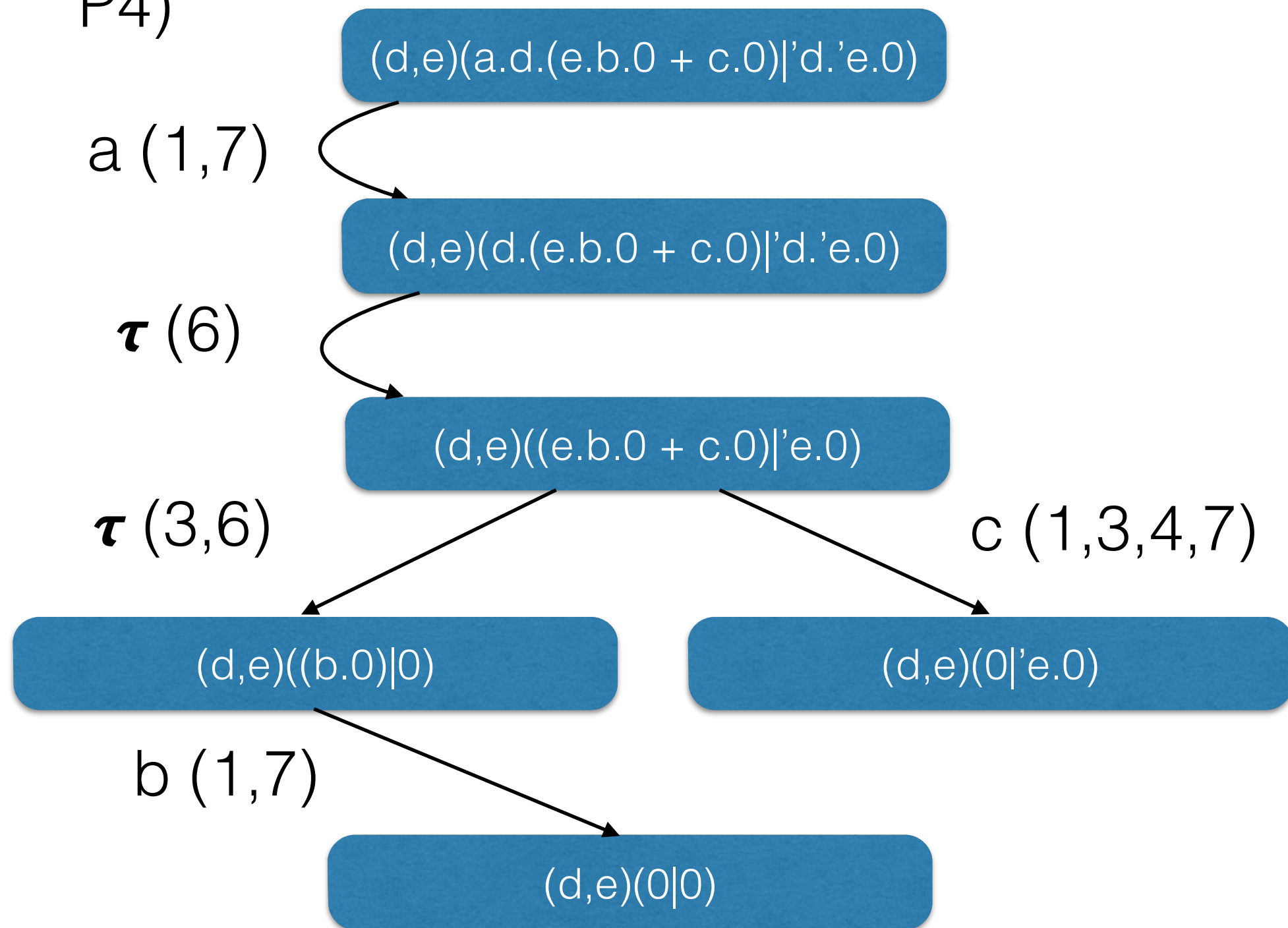
P2)



Task 1
P3)

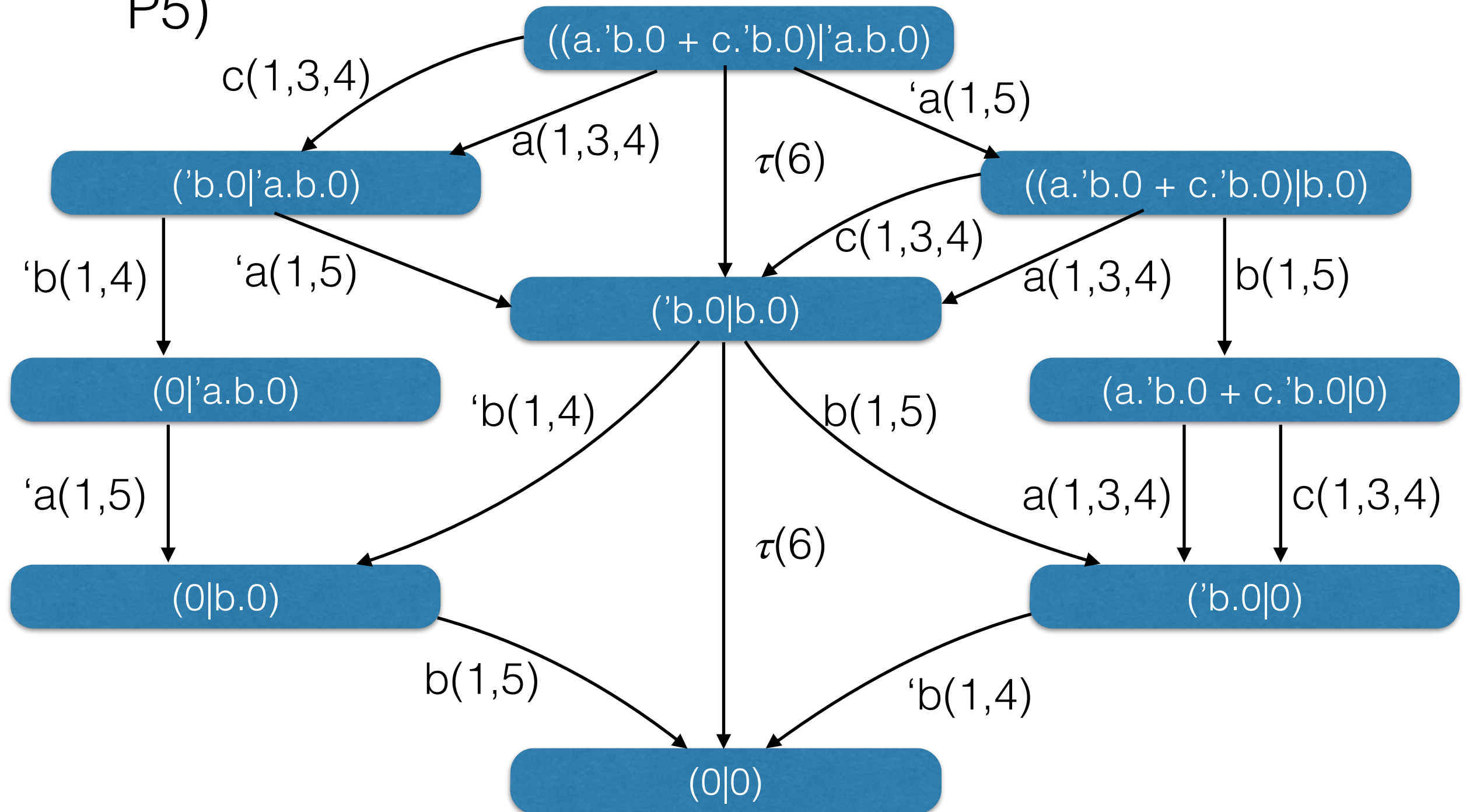


Task 1
P4)



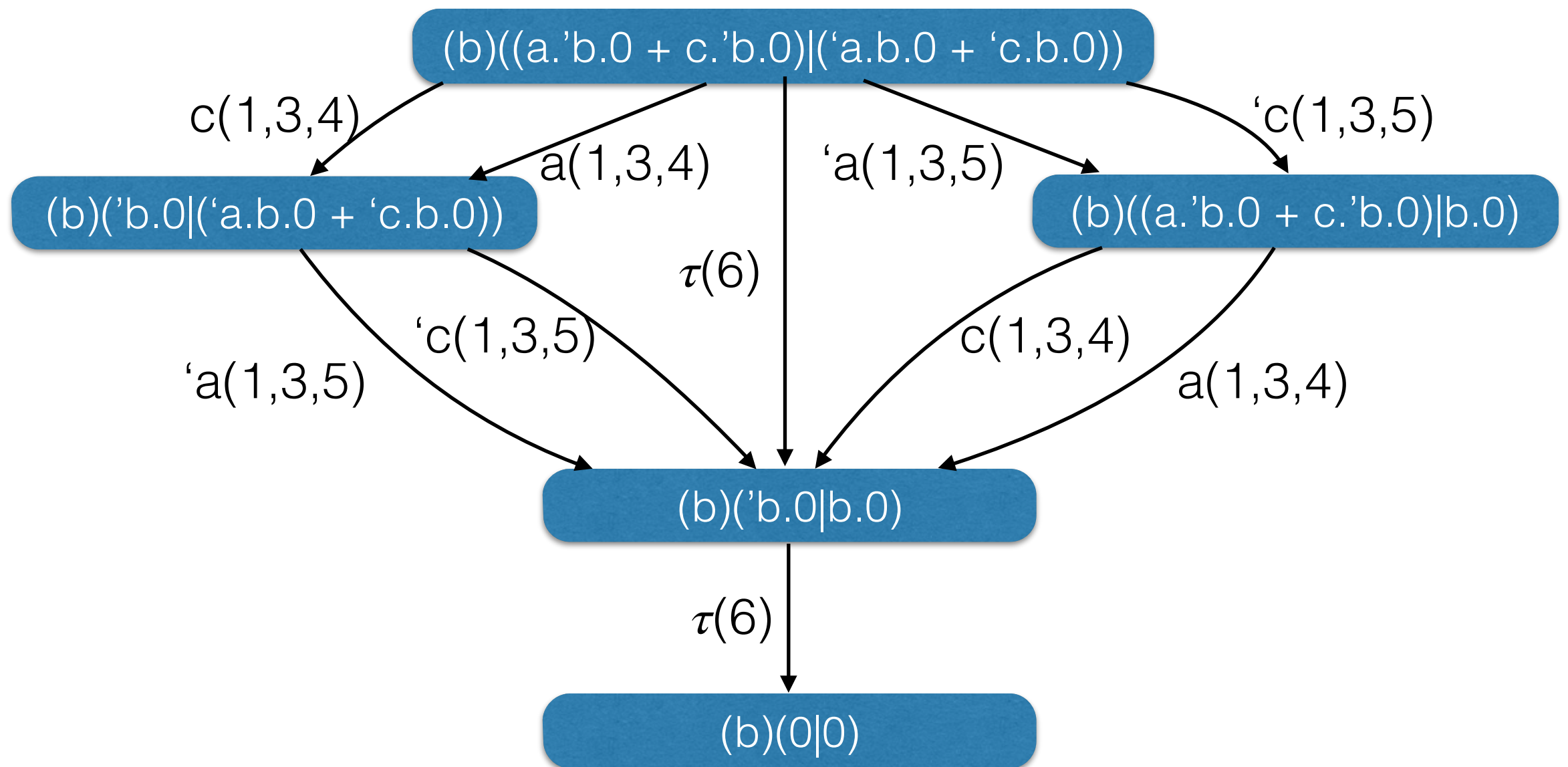
Task 1

P5)



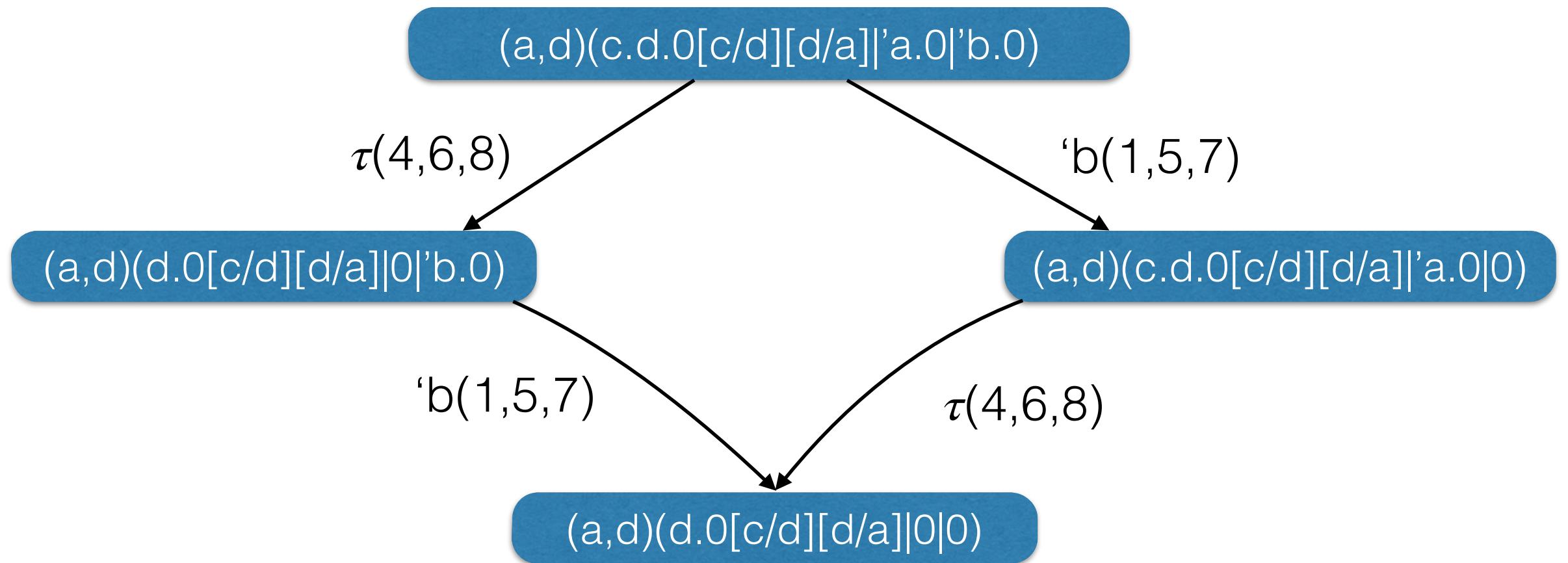
Task 1

P6)



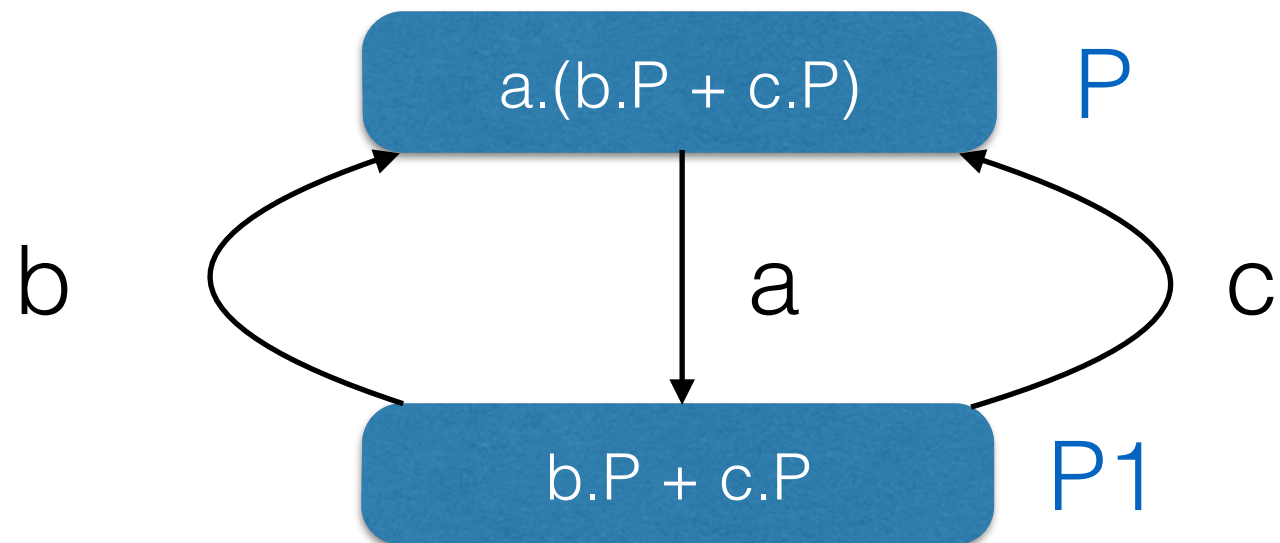
Task 1

P7)



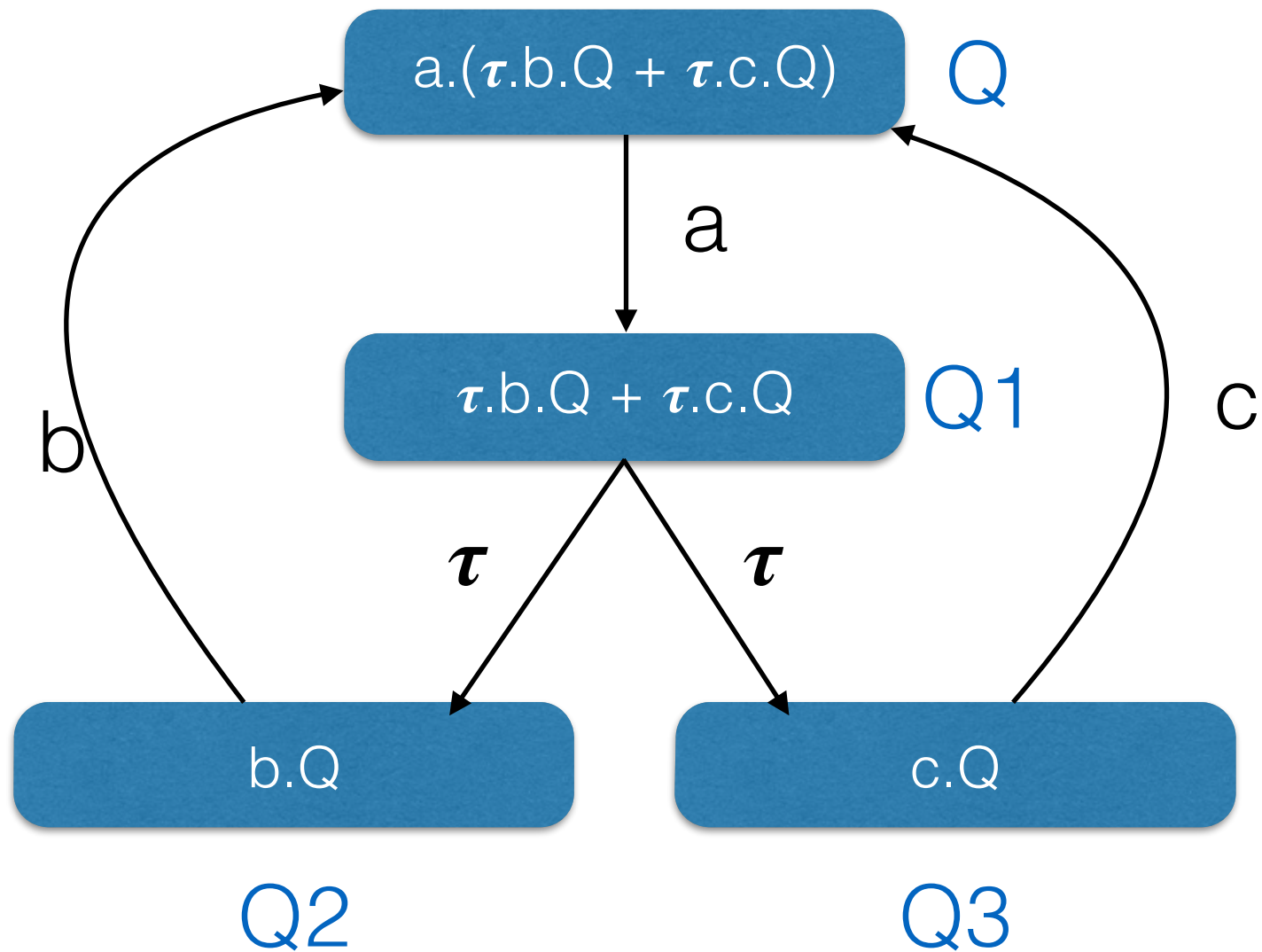
Task2

$P := a.(b.P + c.P)$



$(P \approx R) \ R = \{(P, R), (P, R1), (P1, R2)\}$

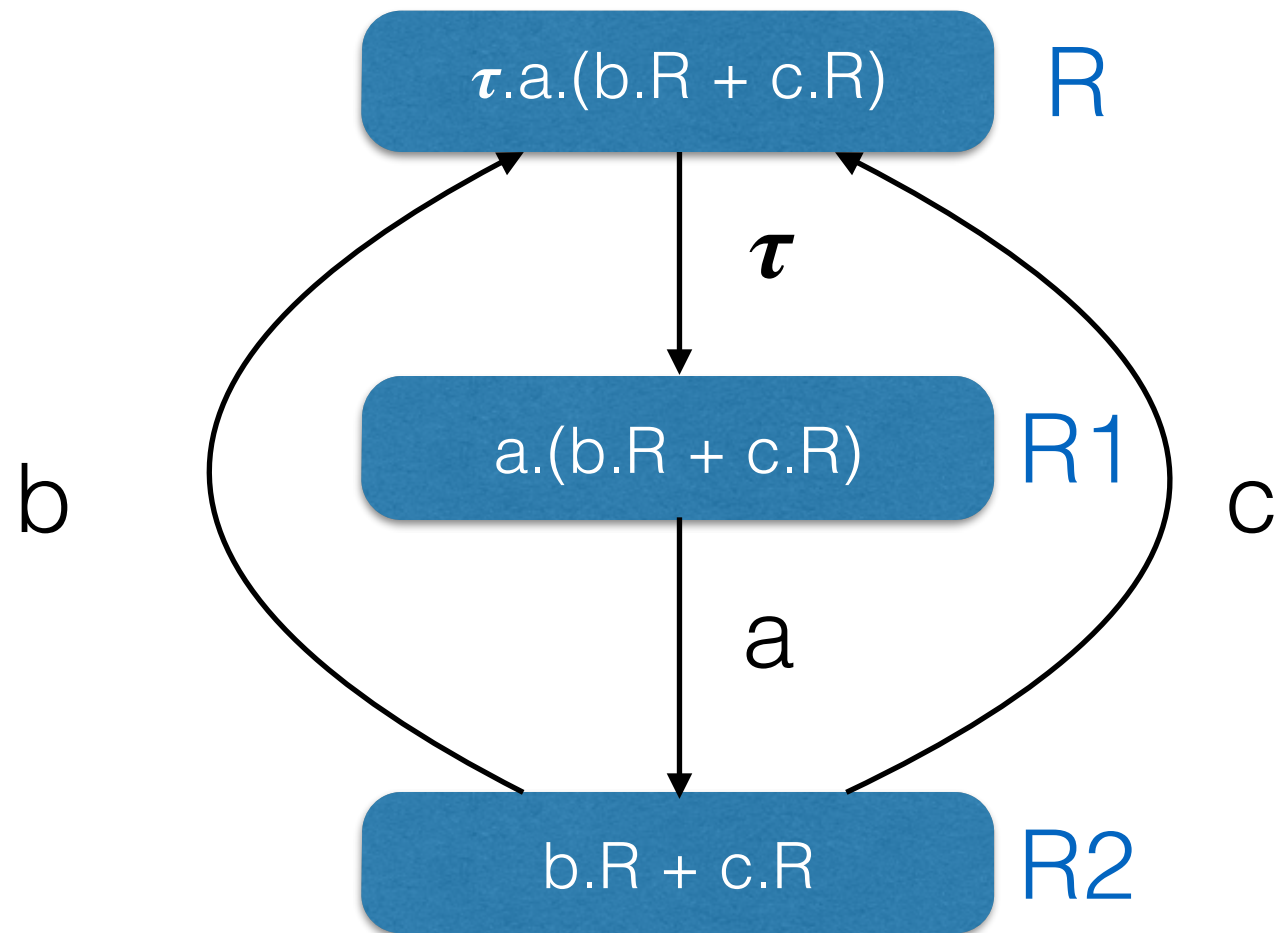
Task2 $Q := a.(\tau.b.Q + \tau.c.Q)$



Q is not on weak bisimulation equivalence with any other process

Task2

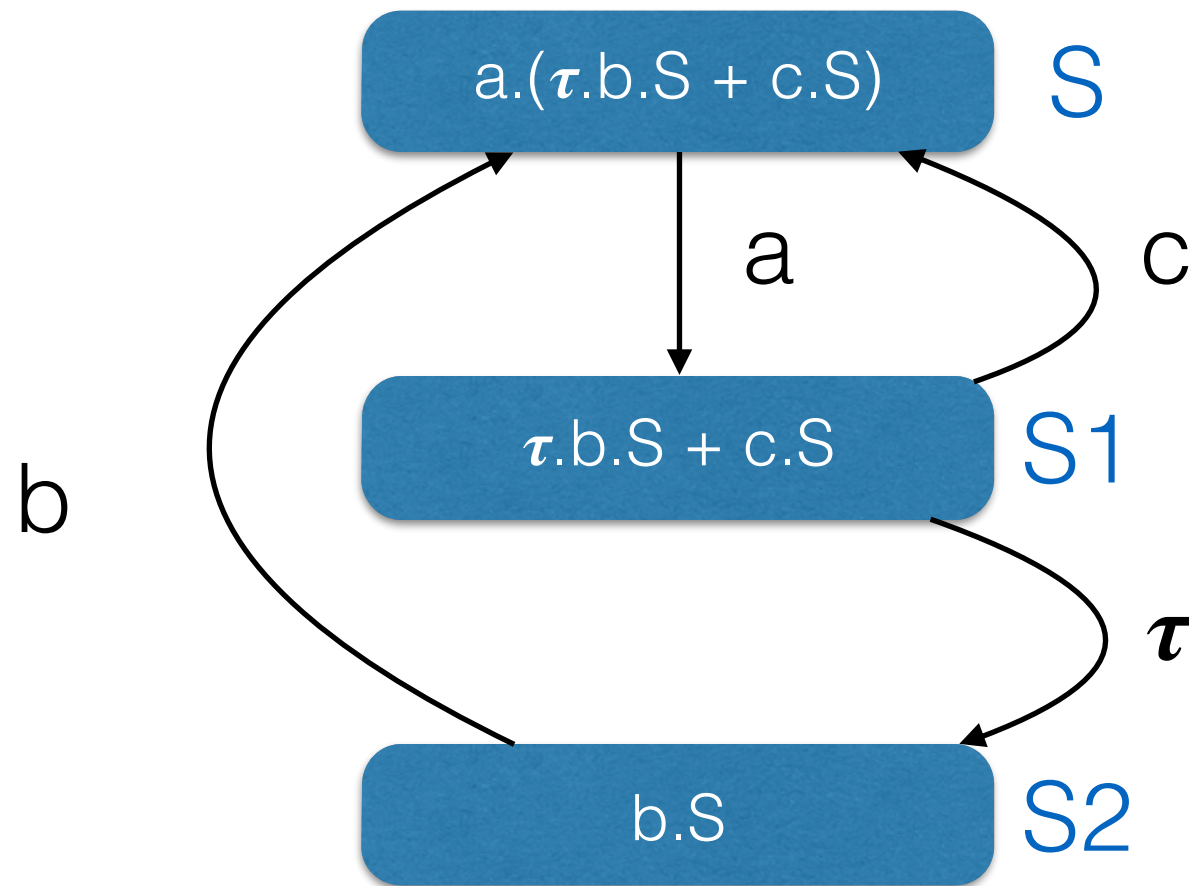
$R := \tau.a.(b.R + c.R)$



$(P \approx R) \quad R = \{(P, R), (P, R1), (P1, R2)\}$

Task2

$$S := a.(\tau.b.S + c.S)$$



S is not on weak bisimulation equivalence with any other process

Task3

- 1) $P1 := a.P1 + s.P2$ $P2 := a.'a.P2 + s.P2$
- 2) $P1 := a.'a.P1 + s.P2$ $P2 := a.'b.P2 + s.P1$
- 3) $P1 := a.'a.P1 + s.P2$ $P2 := a.'b.P3 + s.P2$
 $P3 := a.'b.P4 + s.P3$ $P4 := a.'b.P1 + s.P4$