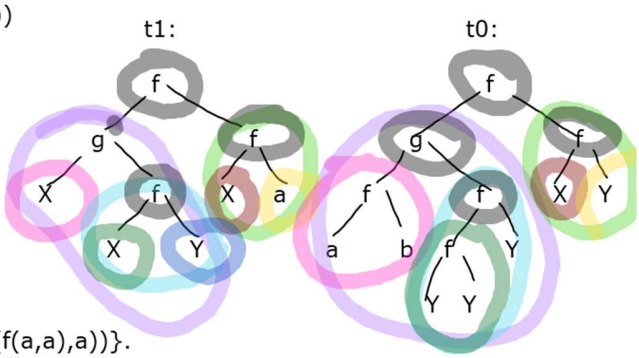
Rezolvare pentru **Exerciţiul 2** din setul de exerciţii recapitulative pentru prima parte a materiei:

(1)

f(g(X,f(X,Y)),f(X,a))=f(g(f(a,b),f(f(Y,Y),Y)),f(X,Y))

t1 t0



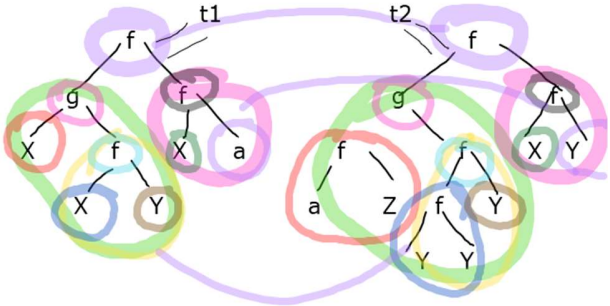
S=vida, R={f(g(X,f(X,Y)),f(X,a))=
f(g(f(a,b),f(f(Y,Y),Y)),f(X,Y))}.
Descompunere: S=vida, R={f(X,a)=f(X,Y),
g(X,f(X,Y)=g(f(a,b),f(f(Y,Y),Y))}.
Descompunere: S=vida, R={X=X, a=Y,
g(X,f(X,Y)=g(f(a,b),f(f(Y,Y),Y))}.
Stergere: S=vida, R={a=Y,
g(X,f(X,Y)=g(f(a,b),f(f(Y,Y),Y))}.
Rezolvare: S={Y/a}, R={g(X,f(X,a))=g(f(a,b),f(f(a,a),a))}.
Descompunere: S={Y/a}, R={X=f(a,b), f(X,a)=f(a,a),a)}.
Rezolvare: S={X/f(a,b), Y/a}, R={f(f(a,b),a)=f(a,a),a)}.
Descompunere: S={X/f(a,b), Y/a}, R={f(a,b)=f(a,a), a=a}.
Stergere: S={X/f(a,b), Y/a}, R={f(a,b)=f(a,a)}.
Descompunere: S={X/f(a,b), Y/a}, R={a=a, b=a }

b, a: constante diferite, asadar termeni de operatori dominanti (b, a) diferiti, prin urmare b nu unifica, cu a, asadar t1 si t0 nu unifica, adica t1 si t0 nu au unificator, adica problema de unificare t1=t0 nu are solutie.

(2)

S=vida, R={f(g(X,f(X,Y)),f(X,a))=f(g(f(a,Z),f(f(Y,Y),Y)),f(X,Y))}

Descompunere:
S=vida, R ={g(X,f(X,Y))=g(f(a,Z),f(f(Y,Y),Y)),
f(X,a)=f(X,Y)}



Descompunere: S=vida,
R={g(X,f(X,Y))=g(f(a,Z),f(f(Y,Y),Y)),X=X,a=Y}.
Stergere: S=vida,
R={g(X,f(X,Y))=g(f(a,Z),f(f(Y,Y),Y)),a=Y}.
Rezolvare: S={Y/a},
R={g(X,f(X,a))=g(f(a,Z),f(f(a,a),a))}.
Descompunere: S={Y/a},
R={X=f(a,Z), f(X,a)=f(f(a,a),a)}.
Rezolvare: S={X/f(a,Z),Y/a},
R={f(f(a,Z),a)=f(f(a,a),a)}.
Descompunere: S={X/f(a,Z),Y/a},
R={f(a,Z)=f(a,a),a=a}.
Stergere: S={X/f(a,Z),Y/a}, R={f(a,Z)=f(a,a)}.
Descompunere: S={X/f(a,Z),Y/a}, R={a=a,Z=a}.
Stergere: S={X/f(a,Z),Y/a}, R={Z=a}.
Rezolvare: S={X/f(a,a),Y/a,Z/a}, R=vida.
Un c.g.u. pt. t1 si t2 este: {X/f(a,a),Y/a,Z/a}.

“Pe hârtie”, a se înlocui “vidă” cu ϕ în cele de mai sus.