

# Dziadek

dziadek (X, piotr)

k5

k5: dziadek(karol, marek).

$\sigma: X = \text{karol}$   
marek  $\setminus =$  piotr

k6: dziadek (X1, Y1) :- ojciec (X1, Z1),

dziecko (Y1, Z1).

$\sigma: X1 = X, Y1 = \text{piotr}$

ojciec (X, Z1), dziecko (piotr, Z1)

k1

k1: ojciec (karol, jan)

$\sigma: Z1 = \text{jan}, X = \text{karol}$   
dziecko (piotr, jan).

k2: ojciec (karol, adam)

$\sigma: Z1 = \text{adam}, X = \text{karol}$   
dziecko (piotr, adam).

k3

k3: dziecko (tomasz, jan)

tomasz  $\setminus =$  piotr

k3

~~k4: dziecko (piotr, adam)~~

k4: dziecko (piotr, adam)

Odp. karol

k4: dziecko (piotr, adam)

adam  $\setminus =$  jan

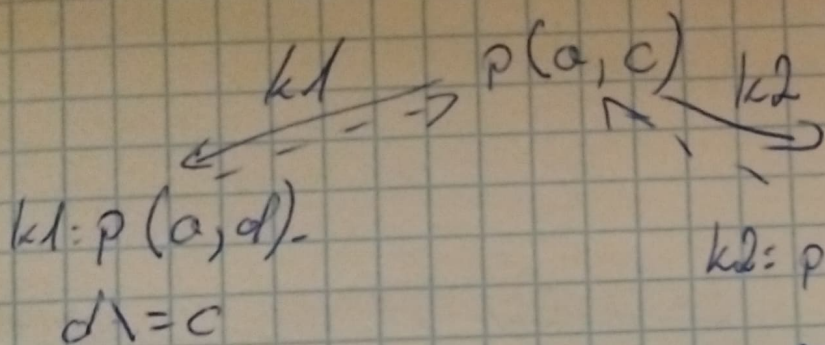
k3: dziecko (tomasz, jan)

tomasz  $\setminus =$  piotr,

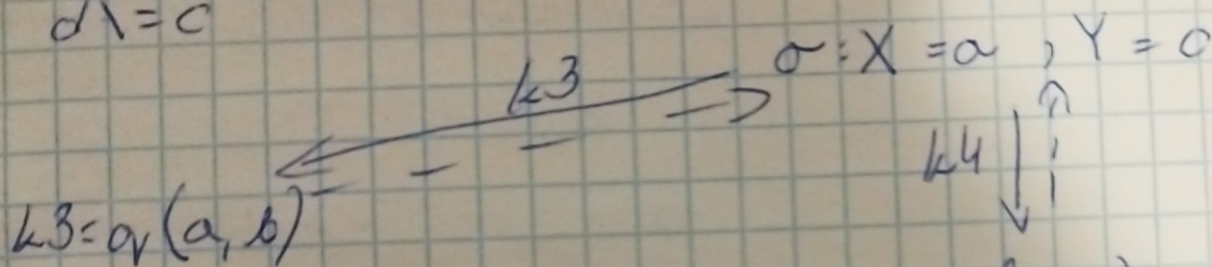
jan  $\setminus =$  adam



Zbiornosci



$k2: p(X, Y) \leftarrow q(X, Z), r(Z, Y).$

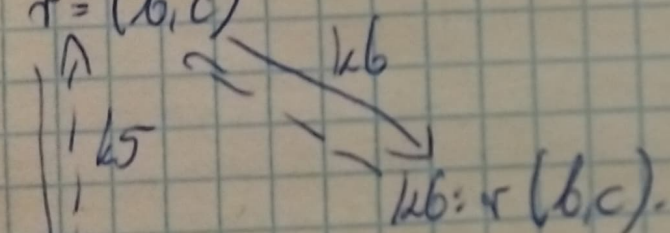


$\sigma: Z = b$   
 $r = (b, c)$

$k4: q(c, a)$

$\sigma: Z = a$

$c \setminus = a$



Op. true

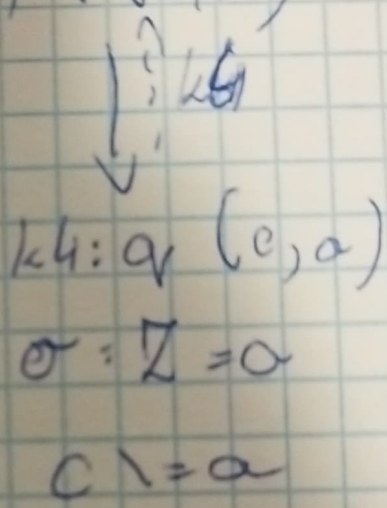
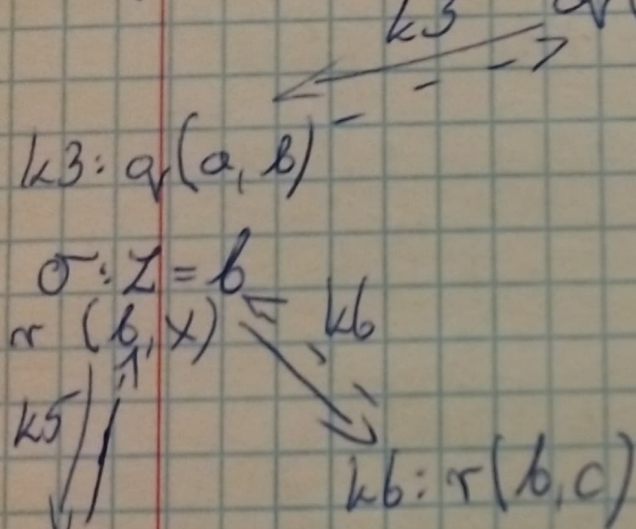
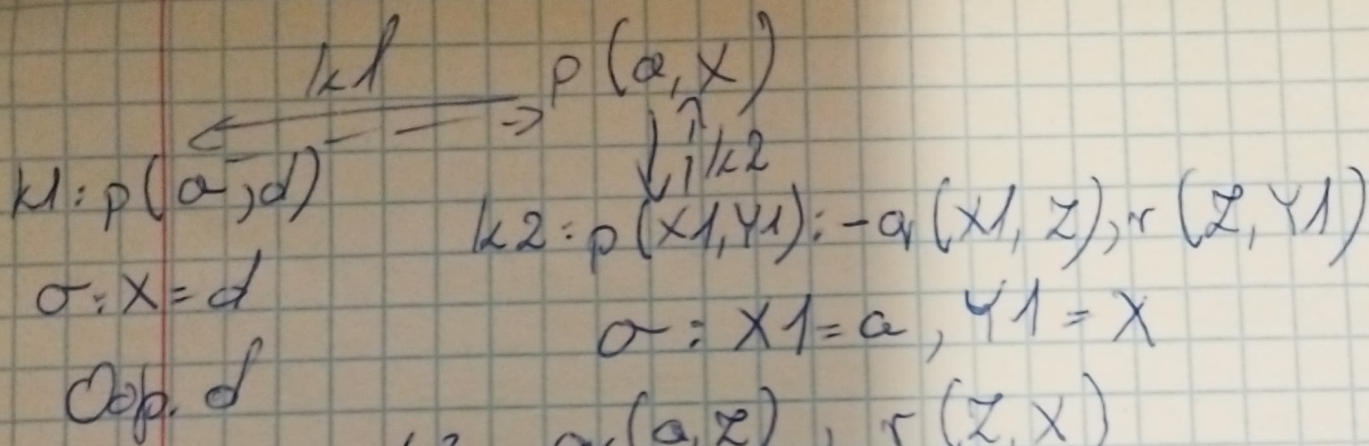
$k5: r(a, d)$

$a \setminus = b$

$d \setminus = c$

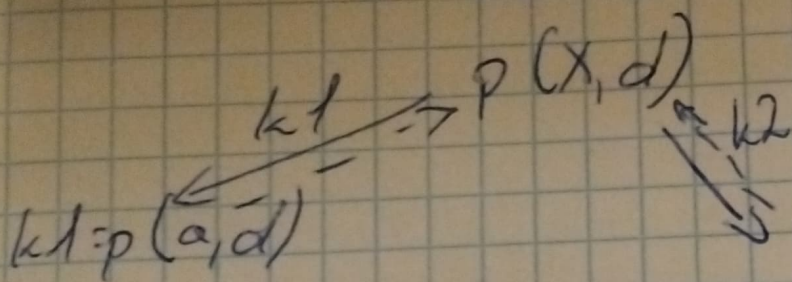


Zbirnošci c.d.





Zbieżności c.d.



$$k1: p(a, d)$$

$$\sigma: X = a$$

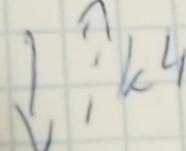
Op. a

$$k2: p(X1, Y1) :- a(X1, Z), r(Z, Y1)$$

$$\sigma: X1 = X, Y1 = d$$

$$k3: a(X, Z), r(Z, d)$$

k3



$$k3: a(a, b)$$

$$\sigma: X = a, Z = b$$

$$k4: a(c, a)$$

$$\sigma: X = c, Z = a$$

$$k5: r(b, d)$$

$$k6: r(b, c)$$

$$c \setminus = d$$

$$k5: r(a, d)$$

$$k6: r(b, c)$$

$$k5: r(a, d)$$

$$a \setminus = b$$

$$k5: r(a, d)$$

Op. c

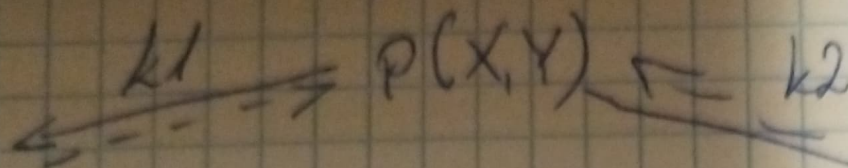
$$k6: r(b, c)$$

$$b \setminus = a$$

$$c \setminus = d$$



Збіжності c.d.



$$k1: p(a, d)$$

$$\sigma: X=a, Y=d$$

$$\text{Odp. } X=a$$

$$Y=d$$

$$k2: p(X1, Y1)$$

$$-q(X1, Z), r(Z, Y1)$$

$$\sigma: X1=X, Y1=Y$$

$$q(X, Z), r(Z, Y)$$

$$\uparrow k4$$

$$k4: q(C, a)$$

$$\sigma: X=C, Z=a$$

$$r(a, Y)$$

$$\uparrow k5$$

$$k5: r(a, d)$$

$$\sigma: Y=d$$

$$\text{Odp. } X=C$$

$$Y=d$$

$$\uparrow k6$$

$$k6: r(b, c)$$

$$\sigma: Y=c$$

$$b \vee a$$

$$k3$$

$$k3: q(a, b)$$

$$\sigma: X=a, Z=b$$

$$r(b, Y)$$

$$k6: r(b, c)$$

$$\sigma: Y=c$$

$$\text{Odp. } X=a$$

$$Y=c$$

$$k5: r(a, d)$$

$$\sigma: X=d$$

$$a \vee b$$