

$$X \equiv B \cap C \quad \text{AL}$$
$$X(x)$$

$$B(x)$$

$$C(x)$$

$$X \equiv \exists p. D$$

$$p(x, y)$$

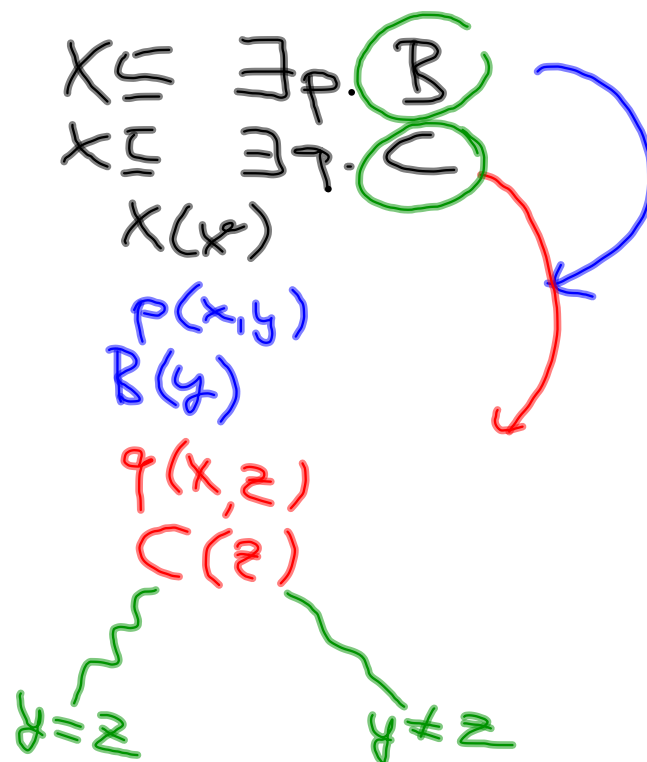
$$D(y)$$

$$X = E \cup F$$

$$E(x) \quad / \quad \backslash \quad F(x)$$

\Rightarrow X wird existiert?
habe, zu einem
y, das ein D ist

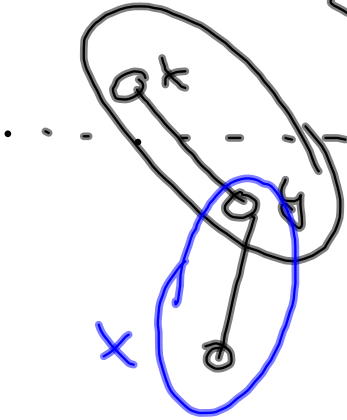
$\leadsto \mathcal{U}$ also komplexe



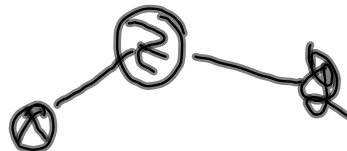
$\forall x : (\text{grandparent}(x) \leftrightarrow$

$\exists y : (\text{child}(x, y)$

$\wedge \exists z : \text{child}(y, z))$)



$\text{uncle}(x, y)$



\Rightarrow Variable \rightarrow Nichtig!

Three Children Parent (x)
 $TCP \equiv \exists \text{ hasChild} . T$

$TCP(x) \leftrightarrow \exists y_1, y_2, y_3 : \text{hasChild}(x, y_1)$
 $\wedge \text{hasChild}(x, y_2)$
 $\wedge \text{hasChild}(x, y_3)$

and
 3 Var-Fragment
 rule!

$\wedge y_1 \neq y_2 \wedge y_1 \neq y_3 \wedge y_2 \neq y_3$

\Rightarrow 2 Var FOL + 2a7kade Qua8ron \rightarrow ex8decider.

