

ti gyak

Resolution:

$$\neg R(x) \vee L(x)$$

$$\neg D(x) \vee \neg L(x)$$

$$\neg R(x) \vee \neg D(x)$$

$$D(\text{Flippen})$$

$$I(\text{Flippen})$$

$$\neg I(x) \vee R(x)$$

$$\neg D(x) \vee I(x)$$

$$x = \text{Flippen}$$

$$\neg I(\text{Flippen})$$

h: x rechts
flippert

q: pfeilt

$$\forall x f(x) \rightarrow h(x) \wedge \forall x g(x) \rightarrow h(x) \quad T$$

$$\exists x f(x) \wedge g(x) \quad F$$



Find a domain an interpretation all sentences are true

$$\forall x \exists y f(x, y) \rightarrow x < y$$

$$\forall x \neg f(x, x) \rightarrow x \neq x$$

$$\forall x, y, z f(x, y) \wedge f(y, z) \rightarrow f(x, z)$$

$$x < y \quad y < z \quad x < z$$

RENDERER: RENDER

$$U: W + \text{L\u00f6sungen}$$

$$f: \text{L\u00f6sungen}$$

$$g: \text{L\u00f6sungen}$$

Objects: A, B, C

Constants: x, y, z

Predicates: p, q, r

Functions: f

$$I(x) = B \quad I(y) = B \quad I(z) = A$$

$$I(f) = \{ \langle A, B \rangle, \langle B, C \rangle, \langle C, C \rangle \}$$

$$I(p) = \{ A, B \} \quad I(q) = \{ C \}$$

$$I(r) = \{ \langle B, A \rangle, \langle C, B \rangle, \langle C, C \rangle \}$$

$$\forall (f(x), y)$$

$$\downarrow \quad \downarrow$$

$$f(B) = C$$

$$\forall (C, B)$$

$$b) \exists w f(w) = w \quad \checkmark$$

$$\Rightarrow f(C) = C$$

$$c) \forall u, v (r(u, v) \rightarrow \forall w r(u, w) \rightarrow \neg v = w)$$

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