

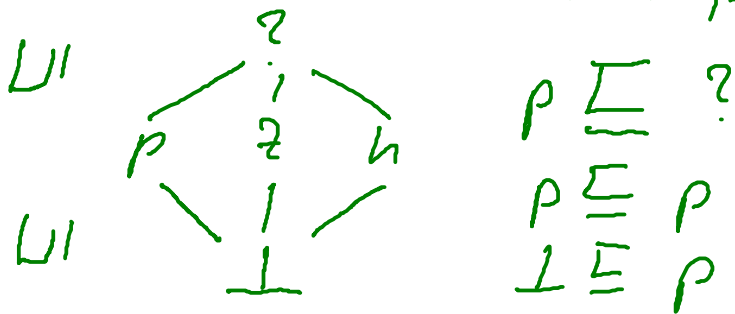
$$\text{fac } 0 = 1$$

$$\text{fac } n \mid n > 0 = n * \text{fac}(n-1)$$

$$\overline{\text{fac } z} = p$$

$$\overline{\text{fac } p} = p * \overline{\text{fac } (p-p)}$$

Abstrakte Werte: $A = \{p, z, n, \dots, \perp\}$



Konkretisierungsfunktion:

$$\delta: A \rightarrow \underbrace{\mathbb{Z}}_{\substack{\text{alle Mengen} \\ \text{ganzer Zahlen}}}$$

$$\delta(\perp) = \{0\}$$

$$\delta(\rho) = \{n \in \mathbb{Z} \mid n > 0\}$$

$$\delta(\eta) = \{n \in \mathbb{Z} \mid n < 0\}$$

$$\delta(?) = \mathbb{Z}$$

$$\delta(\perp) = \emptyset$$

$$a_1 \sqsubseteq a_2 \Rightarrow \delta(a_1) \subseteq \delta(a_2)$$

Korrektheit: z.z.: \forall absh. Op. $\bar{\circ}$:

$\forall a_1, a_2 \in A: \forall v_1 \in \delta(a_1), v_2 \in \delta(a_2)$

$$v_1 \bar{\circ} v_2 \in \delta(a_1 \bar{\circ} a_2)$$

Fixpunkt von $\overline{f_{ac}}$

Beginn: $\overline{f_{ac}} a = \perp \quad \forall a \in A$

$$\overline{f_{ac}} z = p$$

$$\overline{f_{ac}} p = p \neq \overline{f_{ac}} (p = p)$$

1. Iteration: $\overline{f_{ac}} \perp = \perp$

$$\overline{f_{ac}} z = p$$

$$\overline{f_{ac}} p = p \neq \overline{f_{ac}} (p = p)$$

$$\overline{f_{ac}} n = \perp \quad \underbrace{\quad \quad \quad}_{\perp} \quad \underbrace{\quad \quad \quad}_{?}$$

$$\begin{aligned} \overline{f_{ac}} ? &= \overline{f_{ac}} p \cup \overline{f_{ac}} n \cup \overline{f_{ac}} z \\ &= \perp \cup \perp \cup p = p \end{aligned}$$

2. Iteration: $\overline{f_{ac}} \perp = \perp$

$$\overline{f_{ac}} z = p$$

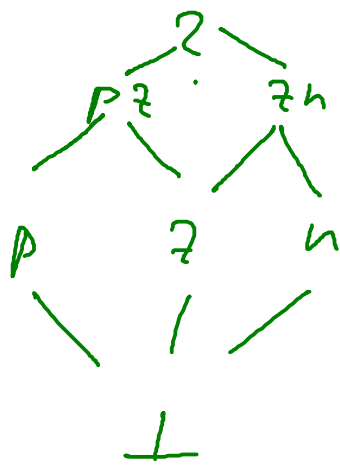
$$\overline{f_{ac}} p = p \neq \overline{f_{ac}} (p = p)$$

$$\underbrace{\quad \quad \quad}_{?}$$

$$= p \quad p$$

$$\overline{f_{ac}} ? = p$$

3. Iteration: keine Änderung!



$$A = \{ \perp, p, z, h, pz, zh, ? \}$$

$$(i, j) \approx [i..j]$$

