

a)

$$T_1 \stackrel{?}{=} T_2$$

$$\text{exp}(\text{list}(\text{double}, \text{int}, \text{float}), \alpha) \stackrel{?}{=} \text{exp}(\text{list}(\beta, \gamma), \text{list}(\text{int}))$$

① → - 0,5 P.

$$\{\underbrace{\text{list}(\text{double}, \text{int}, \text{float})}_3 \stackrel{?}{=} \underbrace{\text{list}(\beta, \gamma)}_2, \alpha \stackrel{?}{=} \text{list}(\text{int})\}$$

② → Fail. No unification possible ✓

$$f(s_1 \dots s_n) \stackrel{?}{=} g(t_1 \dots t_m), n \neq m \Rightarrow \text{fail}$$

b)

$$T_3 \stackrel{?}{=} T_4$$

$$\text{median}(\alpha, \text{list}(\alpha), \text{max}(\beta, \text{int})) \stackrel{?}{=} \text{median}(\text{int}, \text{list}(\text{int}), \text{max}(\text{float}, \delta))$$

① →

$$\{\alpha \stackrel{?}{=} \text{int}, \text{list}(\alpha) \stackrel{?}{=} \text{list}(\text{int}), \text{max}(\beta, \text{int}) \stackrel{?}{=} \text{max}(\text{float}, \delta)\}$$

① → ① →

$$\{\alpha \stackrel{?}{=} \text{int}, \alpha \stackrel{?}{=} \text{int}, \beta \stackrel{?}{=} \text{float}, \text{int} \stackrel{?}{=} \delta\}$$

zu viele Regeln ausgelassen! - 3 P.

④ → { \alpha \stackrel{?}{=} \text{int}, \beta \stackrel{?}{=} \text{float}, \delta \stackrel{?}{=} \text{int} }

$$\theta = \{\alpha \rightarrow \text{int}, \beta \rightarrow \text{int}, \delta \rightarrow \text{int}\}$$

c)

$$T_5 \stackrel{?}{=} T_6$$

$$\text{func}(\beta, \gamma, \text{int}) \stackrel{?}{=} \text{func}(\alpha, \text{list}(\gamma), \text{int})$$

① - 0,5 P.

$$\{\beta \stackrel{?}{=} \alpha, \gamma \stackrel{?}{=} \text{list}(\gamma), \text{int} \stackrel{?}{=} \text{int}\}$$

③ → { \beta \stackrel{?}{=} \alpha, \gamma \stackrel{?}{=} \text{list}(\gamma) } ✓

⑥ → Fail. No unification possible ($\gamma \stackrel{?}{=} \text{list}(\gamma)$)