

Beispiel 1

$$\Sigma = (\Omega, \Pi) \quad \Omega = \{a/0, f/1\}$$

$$T_\Sigma = \{a, f(a), f(f(a)), \dots, f(\dots f(a)) \dots\}$$
$$= \{f^n(a) \mid n \in \mathbb{N}\}$$

$$A = (U_A, \{f_A: U_A \rightarrow U_A; a_A \in U_A\}, \dots)$$

$$A = (T_\Sigma, \{f_A: T_\Sigma \rightarrow T_\Sigma, a_A \in T_\Sigma\}, \dots)$$

$$a_A = a \in T_\Sigma$$

$$f_A: T_\Sigma \rightarrow T_\Sigma$$

$$f_A(f^n(a)) = f(f^n(a)) = f^{n+1}(a)$$

$$\text{z.B.: } f_A(a) = f(a)$$

$$f_A(f(a)) = f(f(a))$$

$$f_A(f(f(a))) = f(f(f(a)))$$

Beispiel 2

$$\Sigma = (\Omega, \Pi) \quad \Omega = \{a/0, b/0, c/0\}$$

$$T_\Sigma = \{a, b, c\}$$

$$A = (\{a, b, c\}, \{a_A, b_A, c_A \in \{a, b, c\}\}, \dots)$$

$$a_A = a$$

$$b_A = b$$

$$c_A = c$$

Beispiel 3.

$$\Sigma = (\Omega, \Pi) \quad \Omega = \{a/0, b/0, \neq/1\}$$

$$T_\Sigma = \{a, f(a), f(f(a)), \dots\} \cup \{b, f(b), f(f(b)), \dots\} = \{f^n(a) \mid n \in \mathbb{N}\} \cup \{f^n(b) \mid n \in \mathbb{N}\}$$

$$\mathcal{A} = (T_\Sigma, \{a_{\mathcal{A}}, b_{\mathcal{A}}, f_{\mathcal{A}} : T_\Sigma \rightarrow T_\Sigma\}, \dots)$$

$\in T_\Sigma \quad \in T_\Sigma$

$$a_{\mathcal{A}} = a \in T_\Sigma$$

$$b_{\mathcal{A}} = b \in T_\Sigma$$

$$f_{\mathcal{A}}(t) = f(t)$$

also: $f_{\mathcal{A}}(f^n(a)) = f^{n+1}(a)$
 $f_{\mathcal{A}}(f^n(b)) = f^{n+1}(b)$

Beispiel 4

$$\Sigma = (\Omega, \Pi) \quad \Omega = \{a/0, \neq/1, g/2\}$$

$$T_\Sigma = \{a, f(a), f^2(a), \dots\} \cup \{g(a, a), g(a, f(a)), g(f(a), f(a)), g(a, f^2(a)), \dots\} \cup \{f(g(a, a)), f(g(a, f(a))), \dots\}$$

$$\mathcal{A} = (T_\Sigma, \{a_{\mathcal{A}}, f_{\mathcal{A}} : T_\Sigma \rightarrow T_\Sigma, g_{\mathcal{A}} : T_\Sigma \times T_\Sigma \rightarrow T_\Sigma\}, \dots)$$

$$a_{\mathcal{A}} = a \in T_\Sigma$$

$$f_{\mathcal{A}}(t) = f(t)$$

$$g_{\mathcal{A}}(t_1, t_2) = g(t_1, t_2)$$

z.B.: $g_{\mathcal{A}}(a, f(g(a, a))) = g(a, f(g(a, a)))$