Def. 6.3.2 $\mathcal{E} \models_I s \equiv t$ iff $\mathcal{E} \models s\sigma \equiv t\sigma$ for all ground substitutions σ

Thm. 6.3.4 $\mathcal{E} \models_I s \equiv t$ iff
for all ground terms u, v: $\mathcal{E} \not\models u \equiv v$ implies $\mathcal{E} \cup \{s \equiv t\} \not\models u \equiv v$.

Thm. 6.3.5 If $\mathcal{R}$ is convergent and equivalent to $\mathcal{E}$:

$\mathcal{E} \models_I s \equiv t$ iff
for all $q_1, q_2 \in \mathsf{NF}(\mathcal{R})$: $q_1 \neq q_2$ implies $\mathcal{E} \cup \{s \equiv t\} \not\models q_1 \equiv q_2$.

with **Thm. 6.3.8** If $\mathcal{R}$ is convergent and equivalent to $\mathcal{E}$
and $\mathcal{R}$ satisfies the definition principle:

$\mathcal{E} \models_I s \equiv t$ iff
for all $q_1, q_2 \in \mathcal{T}(\Sigma^c)$: $q_1 \neq q_2$ implies $\mathcal{E} \cup \{s \equiv t\} \not\models q_1 \equiv q_2$.

$$\mathcal{E}: \quad \begin{aligned} \mathsf{plus}(\mathcal{O}, y) &\equiv y \\ \mathsf{plus}(\mathsf{succ}(x), y) &\equiv \mathsf{succ}(\mathsf{plus}(x, y)) \end{aligned} \qquad \mathcal{R}: \quad \begin{aligned} \mathsf{plus}(\mathcal{O}, y) &\to y \\ \mathsf{plus}(\mathsf{succ}(x), y) &\to \mathsf{succ}(\mathsf{plus}(x, y)) \end{aligned}$$