rel

Refl $\in$ $(\downarrow A \in \mathbf{Set};\ R \in (A; A)\,\mathbf{Set})\ \mathbf{Set}$

refl $\in$ $(\downarrow A \in \mathbf{Set};\ R \in (A; A)\,\mathbf{Set};\ (a \in A)\,R(a, a))\ \mathrm{Refl}(R)$

Sym $\in$ $(\downarrow A \in \mathbf{Set};\ R \in (A; A)\,\mathbf{Set})\ \mathbf{Set}$

sym $\in$ $(\downarrow A \in \mathbf{Set};$
$\downarrow R \in (A; A)\,\mathbf{Set};$
$(a, a' \in A; R(a, a'))\,R(a', a))\ \mathrm{Sym}(R)$

Trans $\in$ $(\downarrow A \in \mathbf{Set};\ R \in (A; A)\,\mathbf{Set})\ \mathbf{Set}$

trans $\in$ $(\downarrow A \in \mathbf{Set};$
$\downarrow R \in (A; A)\,\mathbf{Set};$
$(a, a', a'' \in A; R(a, a'); R(a', a''))\,R(a, a''))\ \mathrm{Trans}(R)$

Dec $\in$ $(\downarrow A \in \mathbf{Set};\ P \in (A)\,\mathbf{Set})\ \mathbf{Set}$

dec $\in$ $(\downarrow A \in \mathbf{Set};\ \downarrow P \in (A)\,\mathbf{Set};\ (a \in A)\,\mathrm{Plus}(P(a), \mathrm{Not}(P(a))))\ \mathrm{Dec}(P)$

DecR $\in$ $(\downarrow A \in \mathbf{Set};\ R \in (A; A)\,\mathbf{Set})\ \mathbf{Set}$

decR $\in$ $(\downarrow A \in \mathbf{Set};$
$\downarrow R \in (A; A)\,\mathbf{Set};$
$(a, a' \in A)\,\mathrm{Plus}(R(a, a'), \mathrm{Not}(R(a, a'))))\ \mathrm{DecR}(R)$

Tot $\in$ $(\downarrow A \in \mathbf{Set};\ R \in (A; A)\,\mathbf{Set})\ \mathbf{Set}$

tot $\in$ $(\downarrow A \in \mathbf{Set};$
$\downarrow R \in (A; A)\,\mathbf{Set};$
$(a, a' \in A)\,\mathrm{Plus}(R(a, a'), R(a', a)))\ \mathrm{Tot}(R)$

Acc $\in$ $(\downarrow A \in \mathbf{Set};\ (A; A)\,\mathbf{Set};\ A)\ \mathbf{Set}$

acc $\in$ $(\downarrow A \in \mathbf{Set};$
$R \in (A; A)\,\mathbf{Set};$
$a \in A;$
$(b \in A; R(b, a))\,\mathrm{Acc}(R, b))\ \mathrm{Acc}(R, a)$