t6_recdef_2 (TMLehyXtH7U2EXomsLN5FkkrixfXzULp4Lz)

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Let $k4\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k8\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k5\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\neg(X0 \in k4\_zfmisc\_1\ X1\ X2\ X3\ X4) \wedge (\forall X5.\forall X6.\forall X7.\forall X8.\neg(X5 \in X1) \wedge ((X6 \in X2) \wedge ((X7 \in X3) \wedge ((X8 \in X4) \wedge (X0 = k6\_xtuple\_0\ X5\ X6\ X7\ X8)))))) \tag{1}$$

Assume the following.

$$\forall X0.(\exists X1.\exists X2.\exists X3.\exists X4.X0 = k6\_xtuple\_0\ X1\ X2\ X3\ X4) \Rightarrow (X0 = k6\_xtuple\_0\ (k7\_xtuple\_0\ X0)\ (k8\_xtuple\_0\ X0)\ (k5\_xtuple\_0\ X0)\ (k2\_xtuple\_0\ X0)) \tag{2}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(X0 \in k4\_zfmisc\_1\ X1\ X2\ X3\ X4) \Rightarrow (X0 = k6\_xtuple\_0\ (k7\_xtuple\_0\ X0)\ (k8\_xtuple\_0\ X0)\ (k5\_xtuple\_0\ X0)\ (k2\_xtuple\_0\ X0))$$