t3_recdef_2 (TMFu62pDCjVVqs8qNB6rUaHzTYfXFgLGiQr)

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Let $k3\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k5\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\neg(X0 \in k3\_zfmisc\_1\ X1\ X2\ X3) \wedge (\forall X4.\forall X5.\forall X6.\neg(X4 \in X1) \wedge ((X5 \in X2) \wedge ((X6 \in X3) \wedge (X0 = k3\_xtuple\_0\ X4\ X5\ X6)))) \tag{1}$$

Assume the following.

$$\forall X0.(\exists X1.\exists X2.\exists X3.X0 = k3\_xtuple\_0\ X1\ X2\ X3) \Rightarrow (X0 = k3\_xtuple\_0\ (k4\_xtuple\_0\ X0)\ (k5\_xtuple\_0\ X0)\ (k2\_xtuple\_0\ X0)) \tag{2}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.(X0 \in k3\_zfmisc\_1\ X1\ X2\ X3) \Rightarrow (X0 = k3\_xtuple\_0\ (k4\_xtuple\_0\ X0)\ (k5\_xtuple\_0\ X0)\ (k2\_xtuple\_0\ X0))$$