t23_xxreal_0 (TM-NDy3Y9pFGGAGfXcTBWEJNtRK9FZNnZYcz)

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Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.\ (v1\_xxreal\_0\ X2) \Rightarrow ((r1\_xxreal\_0\ X0\ (k3\_xxreal\_0\ X1\ X2)) \Rightarrow (r1\_xxreal\_0\ X0\ X1)))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow ((\ (r1\_xxreal\_0\ X0\ X1) \Rightarrow (k3\_xxreal\_0\ X0\ X1 = X0)) \wedge ((\neg r1\_xxreal\_0\ X0\ X1) \Rightarrow (k3\_xxreal\_0\ X0\ X1 = X1)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0) \wedge (v1\_xxreal\_0\ X1)) \Rightarrow (\ k3\_xxreal\_0\ X0\ X1 = k3\_xxreal\_0\ X1\ X0) \tag{3}$$

Theorem 1

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.\ (v1\_xxreal\_0\ X2) \Rightarrow (\neg(\neg r1\_xxreal\_0\ (k3\_xxreal\_0\ X1\ X2)\ X0) \wedge (r1\_xxreal\_0\ X1\ X0))))$$