l27_xxreal_2 (TMTDLoAWXVLrdtFrMhpg-gDhEBv6itFshDDt)

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Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $m2\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0) \wedge (v1\_xxreal\_0\ X1)) \Rightarrow (v2\_membered\ (k2\_tarski\ X0\ X1)) \tag{1}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(m2\_xxreal\_2\ X1\ X0) \Rightarrow (v1\_xxreal\_0\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow ((m2\_xxreal\_2\ X1\ X0) \Leftrightarrow (\forall X2.(v1\_xxreal\_0\ X2) \Rightarrow ((X2 \in X0) \Rightarrow (r1\_xxreal\_0\ X1\ X2))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_tarski\ X0\ X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \tag{4}$$

Theorem 1

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.(m2\_xxreal\_2\ X2\ (k2\_tarski\ X0\ X1)) \Rightarrow (r1\_xxreal\_0\ X2\ X1)))$$