t59_xxreal_2 (TMPYFTC-NkmzRB6ps2e4kgaKYTRhH7qrvZkj)

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Let $v2\_membered : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_xxreal\_2 : \iota \Rightarrow \iota$ be given. Let $m1\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow ((r1\_tarski\ X0\ X1) \Rightarrow (\forall X2.(m1\_xxreal\_2\ X2\ X1) \Rightarrow (m1\_xxreal\_2\ X2\ X0)))) \tag{1}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (v1\_xxreal\_0\ (k1\_xxreal\_2\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow ((X1 = k1\_xxreal\_2\ X0) \Leftrightarrow ((m1\_xxreal\_2\ X1\ X0) \wedge (\forall X2.(m1\_xxreal\_2\ X2\ X0) \Rightarrow (r1\_xxreal\_0\ X1\ X2))))) \tag{3}$$

Theorem 1

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow ((r1\_tarski\ X0\ X1) \Rightarrow (r1\_xxreal\_0\ (k1\_xxreal\_2\ X0)\ (k1\_xxreal\_2\ X1))))$$