t230_xxreal_1 (TMKFXmFp-Mja5v1PmaZeLoFdJRnEswq6p5z6)

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Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $k4\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xxreal\_0 : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Let $k7\_numbers : \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\neg(X0 \in k1\_numbers) \wedge (r1\_xxreal\_0\ k1\_xxreal\_0\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.(v1\_xxreal\_0\ X2) \Rightarrow ((X0 \in k4\_xxreal\_1\ X1\ X2) \Leftrightarrow ((\neg r1\_xxreal\_0\ X0\ X1) \wedge (\neg r1\_xxreal\_0\ X2\ X0))))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.(v1\_xxreal\_0\ X2) \Rightarrow (\neg(\neg r1\_xxreal\_0\ X1\ X0) \wedge ((\neg r1\_xxreal\_0\ X2\ X1) \wedge (\neg X1 \in k1\_numbers))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{5}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{6}$$

Assume the following.

$$v1\_xxreal\_0\ k1\_xxreal\_0 \tag{7}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xxreal\_0\ X1)\Rightarrow(k4\_xxreal\_1\ X0\ X1 = ReplSep\ (toset\ (\lambda X2 : \iota.m1\_subset\_1\ X2\ k7\_numbers))\ (\lambda X2 : \iota.(\neg r1\_xxreal\_0\ X2\ X0)\wedge(\neg r1\_xxreal\_0\ X1\ X2))\ (\lambda X2 : \iota.X2))) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1)\Leftrightarrow(\forall X2.(X2 \in X0)\Rightarrow(X2 \in X1)) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1\_tarski\ X0\ X1)\wedge(r1\_tarski\ X1\ X0)) \tag{11}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(v2\_membered\ X0) \tag{12}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k7\_numbers)\Rightarrow(v1\_xxreal\_0\ X0) \tag{13}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v1\_xxreal\_0\ X1)) \tag{14}$$

Theorem 1

$$\forall X0.(v1\_xxreal\_0\ X0)\Rightarrow(k4\_xxreal\_1\ X0\ k1\_xxreal\_0 = ReplSep\ (toset\ (\lambda X1 : \iota.m1\_subset\_1\ X1\ k1\_numbers))\ (\lambda X1 : \iota.\neg r1\_xxreal\_0\ X1\ X0)\ (\lambda X1 : \iota.X1))$$