

t225\_xxreal\_1

(TMPpWmp6M7k6ycCi1FdNo4sgifc2nb5obMu)

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

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xxreal\_0 X2) \Rightarrow (\neg(\neg r1\_xxreal\_0 X1 X0) \wedge ((\neg r1\_xxreal\_0 X2 X1) \wedge \\ & (\neg X1 \in k1\_numbers)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (v2\_membered (k4\_xxreal\_1 X0 X1)) \tag{2}$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (k4\_xxreal\_1 \\ & X0 X1 = \text{ReplSep} (\text{toset} (\lambda X2 : \iota.m1\_subset\_1 X2 k7\_numbers)) \\ & (\lambda X2 : \iota.(\neg r1\_xxreal\_0 X2 X0) \wedge (\neg r1\_xxreal\_0 X1 X2)) (\lambda X2 : \\ & \iota.X2))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (v1\_xxreal\_0 X0) \tag{5}$$

**Theorem 1**

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (r1\_tarski (k4\_xxreal\_1 X0 X1) k1\_numbers))$$