

t45\_xxreal\_0  
(TMXzHky7LrB59CcQWDKYF6Epefq9uuoeG86)

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Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xxreal\_0 : \iota$  be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\neg (X0 \in k1\_numbers) \wedge ((r1\_xxreal\_0 X1 X0) \wedge ((\neg X1 \in k1\_numbers) \wedge (X1 \neq k2\_xxreal\_0)))))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\neg (X0 \in k1\_numbers) \wedge (r1\_xxreal\_0 X0 k2\_xxreal\_0)) \quad (2)$$

**Theorem 1**

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2.(v1\_xxreal\_0 X2) \Rightarrow (((X0 \in k1\_numbers) \wedge ((X1 \in k1\_numbers) \wedge ((r1\_xxreal\_0 X0 X2) \wedge (r1\_xxreal\_0 X2 X1)))) \Rightarrow (X2 \in k1\_numbers))))))$$