

t233\_xxreal\_1

(TMHZiD7b2VcaASVg34pfoKXYgqeeCnVbXPk)

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Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k4\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_0 : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\ (v1\_xxreal\_0 X2) \Rightarrow ((X0 \in k4\_xxreal\_1 X1 X2) \Leftrightarrow ((\neg r1\_xxreal\_0 X0 X1) \wedge \\ (\neg r1\_xxreal\_0 X2 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

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

Assume the following.

$$v1\_xxreal\_0 k2\_xxreal\_0 \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Leftrightarrow (X0 \in k1\_numbers) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \tag{5}$$

**Theorem 1**

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow ((X1 \in k4\_xxreal\_1 k2\_xxreal\_0 X0) \Leftrightarrow (\neg r1\_xxreal\_0 X0 X1)))$$