

t22\_nat\_1

(TMdt56xMS7VFbjtkqarnkwo6FFJyBXq15mb)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow ((\neg r1\_xxreal\_0 (k1\_nat\_1 X1 np\_1) X0) \Leftrightarrow (r1\_xxreal\_0 X0 X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1))) \quad (2)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (v1\_xreal\_0 X0) \quad (3)$$

**Theorem 1**

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow (\neg (\neg r1\_xxreal\_0 (k1\_nat\_1 X1 np\_1) X0) \wedge ((r1\_xxreal\_0 X1 X0) \wedge (X0 \neq X1))))$$