

## t37\_nat\_1

(TMSoSWgzBNh3FLXdE1ru5xAVvYosj4oUuv9)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_13 : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $np\_4 : \iota$  be given. Let  $np\_5 : \iota$  be given. Let  $np\_6 : \iota$  be given. Let  $np\_7 : \iota$  be given. Let  $np\_8 : \iota$  be given. Let  $np\_9 : \iota$  be given. Let  $np\_10 : \iota$  be given. Let  $np\_11 : \iota$  be given. Let  $np\_12 : \iota$  be given. Let  $k1\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Assume the following.

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

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (\neg (r1\_xreal\_0 X0 np\_12) \wedge ((X0 \neq k6\_numbers) \wedge ((X0 \neq np\_1) \wedge ((X0 \neq np\_2) \wedge ((X0 \neq np\_3) \wedge ((X0 \neq np\_4) \wedge ((X0 \neq np\_5) \wedge ((X0 \neq np\_6) \wedge ((X0 \neq np\_7) \wedge ((X0 \neq np\_8) \wedge ((X0 \neq np\_9) \wedge ((X0 \neq np\_10) \wedge ((X0 \neq np\_11) \wedge (X0 \neq np\_12)))))))))))))) \quad (2)$$

Assume the following.

$$((v2\_xreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \quad (3)$$

Assume the following.

$$((v2\_xreal\_0 np\_12) \wedge (m2\_subset\_1 np\_12 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_12 k5\_numbers) \wedge (m1\_subset\_1 np\_12 k1\_numbers)) \quad (4)$$

Assume the following.

$$k2\_xcmplx\_0 np\_1 np\_12 = np\_13 \quad (5)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (6)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1 X0)\wedge(m1\_subset\_1 X1 k5\_numbers))\Rightarrow (k1\_nat\_1 X0 X1 = k2\_xcmplx\_0 X0 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1 X0)\wedge(m1\_subset\_1 X1 k5\_numbers))\Rightarrow (k1\_nat\_1 X0 X1 = k1\_nat\_1 X1 X0) \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1)\Rightarrow(v7\_ordinal1 X0) \quad (10)$$

**Theorem 1**

$$\forall X0.(v7\_ordinal1 X0)\Rightarrow(\neg(r1\_xxreal\_0 X0 np\_13)\wedge((X0\neq k6\_numbers)\wedge((X0\neq np\_1)\wedge((X0\neq np\_2)\wedge((X0\neq np\_3)\wedge((X0\neq np\_4)\wedge((X0\neq np\_5)\wedge((X0\neq np\_6)\wedge((X0\neq np\_7)\wedge((X0\neq np\_8)\wedge((X0\neq np\_9)\wedge((X0\neq np\_10)\wedge((X0\neq np\_11)\wedge((X0\neq np\_12)\wedge(X0\neq np\_13))))))))))))))))))$$