

t7_nat_4 (TMRXAtJForXGHGdZSvu- UqeZQ4x9J2Q2eFDj)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_nat_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((r1_nat_d X1 X0) \Rightarrow ((r1_xreal_0 X0 k6_numbers) \vee (r1_xreal_0 X1 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((r1_nat_d X0 k6_numbers) \wedge (r1_nat_d np_1 X0)) \quad (2)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((r1_nat_d X0 X1) \wedge (r1_nat_d X1 X0)) \Rightarrow (X0 = X1)) \quad (3)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg(r1_xreal_0 X0 np_1) \wedge ((X0 \neq k6_numbers) \wedge (X0 \neq np_1))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((r1_xreal_0 X0 X1) \wedge (r1_xreal_0 X1 X0)) \Rightarrow (X0 = X1))) \quad (5)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xreal_0 X0) \quad (6)$$

Theorem 1

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((r1_nat_d X0 X1) \Rightarrow ((r1_xreal_0 X1 k6_numbers) \vee ((X0 = np_1) \vee (X0 = X1)) \vee ((\neg r1_xreal_0 X0 np_1) \wedge (\neg r1_xreal_0 X1 X0))))))$$