

t26_nat_3

(TMXbYqCm6rnc9GsfGn1n6cBz9ny1a7UdiUH)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_nat_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_nat_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k10_nat_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k23_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ (v7_ordinal1 X2) \Rightarrow (((r1_nat_d X0 X1) \wedge (r1_nat_d X1 X2)) \Rightarrow (r1_nat_d \\ X0 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (k11_nat_3 X0 X1 = k10_nat_3 X0 X1) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (v7_ordinal1 (k1_newton X0 X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (v7_ordinal1 (k10_nat_3 X0 X1)) \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\neg \\ (X1 \neq np_1) \wedge ((X0 \neq k6_numbers) \wedge (\neg \forall X2.(v7_ordinal1 X2) \Rightarrow \\ ((X2 = k10_nat_3 X0 X1) \Leftrightarrow ((r1_nat_d (k1_newton X1 X2) X0) \wedge (\neg r1_nat_d \\ (k1_newton X1 (k23_binop_2 X2 np_1)) X0))))))) \end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\\ r1_nat_d X0 (k1_newton X0 (k11_nat_3 X1 X0))) \Rightarrow ((X0 = np_1) \vee ((X1 = \\ k6_numbers) \vee (r1_nat_d X0 X1)))))) \end{aligned}$$