

t34_nat_3

(TMThVBfG3pgenpAG2CznXwhkCSRta7FjWTG)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k13_pre_poly : \iota \Rightarrow \iota$ be given. Let $k12_nat_3 : \iota \Rightarrow \iota$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_newton : \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (r1_tarski (k13_pre_poly X0) (k9_xtuple_0 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(X1 \in k9_xtuple_0 (k12_nat_3 X0)) \Rightarrow ((v7_ordinal1 X1) \wedge (v1_int_2 X1))) \quad (2)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((v1_relat_1 (k12_nat_3 X0)) \wedge ((v4_relat_1 (k12_nat_3 X0) k10_newton) \wedge ((v1_funct_1 (k12_nat_3 X0)) \wedge (v1_partfun1 (k12_nat_3 X0) k10_newton)))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

Theorem 1

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(X1 \in k13_pre_poly (k12_nat_3 X0)) \Rightarrow ((v7_ordinal1 X1) \wedge (v1_int_2 X1)))$$