

t16_int_7

(TMLxuZMjdNq2cGhVPQ97jB1eWissDy3qvE2)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_newton : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v2_pre_poly : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_int_7 : \iota \Rightarrow o$ be given. Let $k8_nat_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r8_pboole : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13_nat_3 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow (k8_nat_3 k10_newton (k13_nat_3 X0) = X0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k10_newton) \wedge ((v1_funct_1 X0) \wedge ((v1_partfun1 X0 k10_newton) \wedge ((v4_valued_0 X0) \wedge (v2_pre_poly X0)))))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k10_newton) \wedge ((v1_funct_1 X1) \wedge ((v1_partfun1 X1 k10_newton) \wedge ((v4_valued_0 X1) \wedge (v2_pre_poly X1)))))) \Rightarrow (((v1_int_7 X0) \wedge ((v1_int_7 X1) \wedge (k8_nat_3 k10_newton X0 = k8_nat_3 k10_newton X1))) \Rightarrow (r8_pboole k10_newton X0 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((v1_relat_1 (k13_nat_3 X0)) \wedge ((v4_relat_1 (k13_nat_3 X0) k10_newton) \wedge ((v1_funct_1 (k13_nat_3 X0)) \wedge ((v1_partfun1 (k13_nat_3 X0) k10_newton) \wedge ((v4_valued_0 (k13_nat_3 X0)) \wedge (v2_pre_poly (k13_nat_3 X0)))))))) \quad (3)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((v1_relat_1 (k13_nat_3 X0)) \wedge ((v4_relat_1 (k13_nat_3 X0) k10_newton) \wedge ((v1_funct_1 (k13_nat_3 X0)) \wedge ((v1_partfun1 (k13_nat_3 X0) k10_newton) \wedge (v1_int_7 (k13_nat_3 X0)))))) \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k10_newton) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_partfun1 X0 k10_newton) \wedge ((v4_valued_0 X0) \wedge (v2_pre_poly \\ & X0)))))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge (v7_ordinal1 X1)) \Rightarrow \\ & ((v1_int_7 X0) \wedge (X1 = k8_nat_3 k10_newton X0)) \Rightarrow (r8_pboole k10_newton \\ & (k13_nat_3 X1) X0)) \end{aligned}$$