

l36_group_10 (TMJSHJW-
dUMjR4vWu74g4RUokiiJCQTckLYL)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $r1_nat_d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k3_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow (\neg(v1_int_2 X0) \wedge ((r1_nat_d X1 (k1_newton X0 \\ & X2)) \wedge ((X1 \neq np_1) \wedge (\forall X3.(m1_subset_1 X3 k5_numbers) \Rightarrow (\\ & X1 \neq k3_nat_1 X0 X3))))))) \end{aligned} \quad (1)$$

Assume the following.

$$r1_xxreal_0 np_1 np_1 \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v7_ordinal1 X0) \wedge (m1_subset_1 X1 k5_numbers)) \Rightarrow \\ & (k3_nat_1 X0 X1 = k3_xcmplx_0 X0 X1) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((\\ & r1_nat_d X0 X1) \Leftrightarrow (\exists X2.(v7_ordinal1 X2) \wedge (X1 = k3_xcmplx_0 \\ & X0 X2)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & ((v7_ordinal1 X2) \wedge (v1_int_2 X2)) \Rightarrow ((r1_nat_d X0 (k1_newton X2 \\ & X1)) \Rightarrow ((r1_xxreal_0 X0 np_1) \vee (r1_nat_d X2 X0)))) \end{aligned}$$