

l4_radix_4

(TMRp6gZ1DdJj3N3U6VsLPsMTvgAkrkr62J4)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k4_radix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_radix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_radix_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((X0 \in k2_finseq_1 X1) \Leftrightarrow ((r1_xxreal_0 np_1 X0) \wedge (r1_xxreal_0 X0 X1)))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 X0 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow ((X3 \in k2_finseq_1 \\ & X0) \Rightarrow (k4_radix_1 X3 X2 (k2_xcmplx_0 X0 np_1) (k10_radix_1 X2 (k2_xcmplx_0 \\ & X0 np_1) X1) = k4_radix_1 X3 X2 X0 (k10_radix_1 X2 X0 (k4_nat_d X1 \\ & (k1_newton (k1_radix_1 X2) X0)))))))))) \quad (3) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1 X2) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow ((X3 \in k2_finseq_1 \\ & X0) \Rightarrow (k4_radix_1 X3 X2 (k2_xcmplx_0 X0 np_1) (k10_radix_1 X2 (k2_xcmplx_0 \\ & X0 np_1) X1) = k4_radix_1 X3 X2 X0 (k10_radix_1 X2 X0 X1)))))) \quad (4) \end{aligned}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (5)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(v7_ordinal1\ X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1\ X2) \Rightarrow ((r1_xxreal_0\ np_1\ X2) \Rightarrow (k4_radix_1\ X2\ X0\ X2 \\ & (k10_radix_1\ X0\ X2\ (k4_nat_d\ X1\ (k1_newton\ (k1_radix_1\ X0)\ X2))) = \\ & k4_radix_1\ X2\ X0\ X2\ (k10_radix_1\ X0\ X2\ X1)))))) \end{aligned}$$