l3_radix_4 (TMH3pBewHnWgW5YB671TF8YDbnavX2irKQs)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_radix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k10\_radix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_radix\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_radix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow ((X0 \in k2\_finseq\_1\ X1) \Rightarrow (X0 \in k2\_finseq\_1\ (k2\_xcmplx\_0\ X1\ X2))))) \tag{1}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1) \wedge (m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{2}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0) \wedge (v7\_ordinal1\ X1)) \Rightarrow (v7\_ordinal1\ (k2\_xcmplx\_0\ X0\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7\_ordinal1\ X0) \wedge ((v7\_ordinal1\ X1) \wedge (v7\_ordinal1\ X2))) \Rightarrow ((v3\_card\_1\ (k10\_radix\_1\ X0\ X1\ X2)\ X1) \wedge (m2\_finseq\_1\ (k10\_radix\_1\ X0\ X1\ X2)\ (k3\_radix\_1\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (\forall X3.((v3\_card\_1\ X3\ X1) \wedge (m2\_finseq\_1\ X3\ (k3\_radix\_1\ X0))) \Rightarrow ((X3 = k10\_radix\_1\ X0\ X1\ X2) \Leftrightarrow (\forall X4.(v7\_ordinal1\ X4) \Rightarrow ((X4 \in k2\_finseq\_1\ X1) \Rightarrow (k4\_radix\_1\ X4\ X0\ X1\ X3 = k9\_radix\_1\ X4\ X0\ X2)))))))) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v7\_ordinal1\ X0) \tag{7}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (\forall X3.(v7\_ordinal1\ X3) \Rightarrow ((X3 \in k2\_finseq\_1\ X0) \Rightarrow (k4\_radix\_1\ X3\ X2\ (k2\_xcmplx\_0\ X0\ np\_\_1)\ (k10\_radix\_1\ X2\ (k2\_xcmplx\_0\ X0\ np\_\_1)\ X1) = k4\_radix\_1\ X3\ X2\ X0\ (k10\_radix\_1\ X2\ X0\ X1))))))$$