

t15\_radix\_5 (TMHddrbX-  
UCm8jXWEzNko569Y2WgbmNTpn7t)

October 27, 2020

Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  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  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_radix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_radix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_radix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7\_ordinal1 X2) \Rightarrow ((X0 \in k2\_finseq\_1 X2) \Rightarrow (k4\_radix\_1 X0 X1 X2 (k10\_radix\_1 \\ & X1 X2 k6\_numbers) = k6\_numbers)))) \end{aligned} \tag{1}$$

Assume the following.

$$m1\_subset\_1 k1\_xboole\_0 k4\_ordinal1 \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7\_ordinal1 X0) \Rightarrow ((r1\_xreal\_0 np\_1 X0) \Rightarrow (\forall X1. \\ & (v7\_ordinal1 X1) \Rightarrow ((r1\_xreal\_0 np\_2 X1) \Rightarrow (\forall X2. ((v3\_card\_1 \\ & X2 X0) \wedge (m2\_finseq\_1 X2 (k3\_radix\_1 X1))) \Rightarrow (\forall X3. ((v3\_card\_1 \\ & X3 X0) \wedge (m2\_finseq\_1 X3 (k3\_radix\_1 X1))) \Rightarrow (\forall X4. ((v3\_card\_1 \\ & X4 X0) \wedge (m2\_finseq\_1 X4 (k3\_radix\_1 X1))) \Rightarrow (\forall X5. ((v3\_card\_1 \\ & X5 X0) \wedge (m2\_finseq\_1 X5 (k3\_radix\_1 X1))) \Rightarrow ((\forall X6.(v7\_ordinal1 \\ & X6) \Rightarrow (\neg(X6 \in k2\_finseq\_1 X0) \wedge (\neg(k4\_radix\_1 X6 X1 X0 X2 = k4\_radix\_1 \\ & X6 X1 X0 X4) \wedge (k4\_radix\_1 X6 X1 X0 X3 = k4\_radix\_1 X6 X1 X0 X5)) \wedge (\neg(k4\_radix\_1 \\ & X6 X1 X0 X3 = k4\_radix\_1 X6 X1 X0 X4) \wedge (k4\_radix\_1 X6 X1 X0 X2 = k4\_radix\_1 \\ & X6 X1 X0 X5)))))) \Rightarrow (k2\_xcmplx\_0 (k8\_radix\_1 X0 X1 X4) (k8\_radix\_1 \\ & X0 X1 X5) = k2\_xcmplx\_0 (k8\_radix\_1 X0 X1 X2) (k8\_radix\_1 X0 X1 X3))))))))) \end{aligned} \tag{3}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{4}$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(( \\ & \quad (r1\_xxreal\_0\ np\_1\ X0)\wedge(r1\_xxreal\_0\ np\_2\ X1))\Rightarrow(\forall X2.( \\ & \quad (v3\_card\_1\ X2\ X0)\wedge(m2\_finseq\_1\ X2\ (k3\_radix\_1\ X1)))\Rightarrow(\forall X3. \\ & \quad ((v3\_card\_1\ X3\ X0)\wedge(m2\_finseq\_1\ X3\ (k3\_radix\_1\ X1)))\Rightarrow(\forall X4. \\ & \quad ((v3\_card\_1\ X4\ X0)\wedge(m2\_finseq\_1\ X4\ (k3\_radix\_1\ X1)))\Rightarrow((\forall X5. \\ & \quad (v7\_ordinal1\ X5)\Rightarrow(\neg(X5 \in k2\_finseq\_1\ X0)\wedge(\neg(k4\_radix\_1\ X5\ X1 \\ & \quad X0\ X2 = k4\_radix\_1\ X5\ X1\ X0\ X4)\wedge(k4\_radix\_1\ X5\ X1\ X0\ X3 = k6\_numbers))\wedge \\ & \quad (\neg(k4\_radix\_1\ X5\ X1\ X0\ X3 = k4\_radix\_1\ X5\ X1\ X0\ X4)\wedge(k4\_radix\_1\ X5 \\ & \quad X1\ X0\ X2 = k6\_numbers))))))\Rightarrow(k2\_xcmplx\_0\ (k8\_radix\_1\ X0\ X1\ X4)\ (k8\_radix\_1 \\ & \quad X0\ X1\ (k10\_radix\_1\ X1\ X0\ k6\_numbers)) = k2\_xcmplx\_0\ (k8\_radix\_1 \\ & \quad X0\ X1\ X2)\ (k8\_radix\_1\ X0\ X1\ X3)))))) \end{aligned}$$