

t4\_radix\_4  
(TMXd1bKoDCAJe2LqyvzzAfZ6p8LL4dKrxxS)

October 27, 2020

Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_2 : \iota$  be given. Let  $r1\_radix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $k7\_radix\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_radix\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_radix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_radix\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_radix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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. Assume the following.

$$\begin{aligned} & \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v7\_ordinal1 X2) \Rightarrow ((r1\_xxreal\_0 np\_2 X0) \Rightarrow (k7\_radix\_3 (k2\_xcmplx\_0 \\ & X2 np\_1) X0 (k2\_xcmplx\_0 X2 np\_1) (k10\_radix\_3 X2 X0 (k10\_radix\_1 \\ & X0 X2 X1)) = k5\_radix\_3 (k4\_radix\_1 X2 X0 X2 (k10\_radix\_1 X0 X2 X1)) \\ & X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow (( \\ & r1\_radix\_1 np\_1 X0 X1) \Rightarrow (k4\_radix\_1 np\_1 X1 np\_1 (k10\_radix\_1 \\ & X1 np\_1 X0) = X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \end{aligned} \tag{3}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{4}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \tag{5}$$

**Theorem 1**

$$\begin{aligned} \forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (( \\ (r1\_xreal\_0\ np\_2\ X0) \wedge (r1\_radix\_1\ np\_1\ X1\ X0)) \Rightarrow (k7\_radix\_3 \\ (k2\_xcmplx\_0\ np\_1\ np\_1)\ X0\ (k2\_xcmplx\_0\ np\_1\ np\_1)\ (k10\_radix\_3 \\ np\_1\ X0\ (k10\_radix\_1\ X0\ np\_1\ X1)) = k5\_radix\_3\ X1\ X0))) \end{aligned}$$