

## l14\_topreal2

(TMKiruZtcHKjHcgg6HGx3KxivtgShjR4tAuc)

October 27, 2020

Let  $k19\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k1\_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k15\_euclid : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$k4\_struct\_0 (k15\_euclid np\_2) = k19\_euclid k6\_numbers k6\_numbers \quad (1)$$

Assume the following.

$$\begin{aligned} & (k1\_rltopsp1 (k15\_euclid np\_2) (k19\_euclid k6\_numbers k6\_numbers) \\ & (k19\_euclid k6\_numbers np\_1) = ReplSep (toset (\lambda X0 : \iota.m1\_subset\_1 \\ & \quad X0 (u1\_struct\_0 (k15\_euclid np\_2)))) (\lambda X0 : \iota.(k17\_euclid \\ X0 = k6\_numbers) \wedge ((r1\_xxreal\_0 (k18\_euclid X0) np\_1) \wedge (r1\_xxreal\_0 \\ & \quad k6\_numbers (k18\_euclid X0)))) (\lambda X0 : \iota.X0) \wedge ((k1\_rltopsp1 \\ & \quad (k15\_euclid np\_2) (k19\_euclid k6\_numbers np\_1) (k19\_euclid \\ np\_1 np\_1) = ReplSep (toset (\lambda X0 : \iota.m1\_subset\_1 X0 (u1\_struct\_0 \\ & \quad (k15\_euclid np\_2)))) (\lambda X0 : \iota.(r1\_xxreal\_0 (k17\_euclid \\ X0) np\_1) \wedge ((r1\_xxreal\_0 k6\_numbers (k17\_euclid X0)) \wedge (k18\_euclid \\ X0 = np\_1))) (\lambda X0 : \iota.X0) \wedge ((k1\_rltopsp1 (k15\_euclid np\_2) \\ & (k19\_euclid k6\_numbers k6\_numbers) (k19\_euclid np\_1 k6\_numbers) = \\ & \quad ReplSep (toset (\lambda X0 : \iota.m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid \\ np\_2)))) (\lambda X0 : \iota.(r1\_xxreal\_0 (k17\_euclid X0) np\_1) \wedge \\ & (r1\_xxreal\_0 k6\_numbers (k17\_euclid X0)) \wedge (k18\_euclid X0 = k6\_numbers))) \\ & \quad (\lambda X0 : \iota.X0) \wedge (k1\_rltopsp1 (k15\_euclid np\_2) (k19\_euclid \\ np\_1 k6\_numbers) (k19\_euclid np\_1 np\_1) = ReplSep (toset (\lambda X0 : \\ & \quad \iota.m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2)))) (\lambda X0 : \\ & \quad \iota.(k17\_euclid X0 = np\_1) \wedge ((r1\_xxreal\_0 (k18\_euclid X0) np\_1) \wedge \\ & \quad (r1\_xxreal\_0 k6\_numbers (k18\_euclid X0)))) (\lambda X0 : \iota.X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (3)$$

Assume the following.

$$k18\_euclid (k19\_euclid k6\_numbers np\_1) = np\_1 \quad (4)$$

Assume the following.

$$\begin{aligned} \neg k19\_euclid k6\_numbers k6\_numbers \in k1\_rltopsp1 (k15\_euclid np\_2) \\ (k19\_euclid np\_1 k6\_numbers) (k19\_euclid np\_1 np\_1) \end{aligned} \quad (5)$$

**Theorem 1**

$$\begin{aligned} \neg k19\_euclid k6\_numbers np\_1 \in k1\_rltopsp1 (k15\_euclid np\_2) \\ (k19\_euclid k6\_numbers k6\_numbers) (k19\_euclid np\_1 k6\_numbers) \end{aligned}$$