

## l13\_topreal2

(TML3xMm7wFEebSdm8h1aTgZBVwKxPjTfp1a)

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Let  $k19\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  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  $np\_1 : \iota$  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  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$\begin{aligned}
 & (k1\_rltopsp1 (k15\_euclid np\_2) (k19\_euclid k6\_numbers k6\_numbers) \\
 & (k19\_euclid k6\_numbers np\_1) = ReplSep (toset (\lambda X0 : \iota.m1\_subset\_1 \\
 & \quad X0 (u1\_struct\_0 (k15\_euclid np\_2)))) (\lambda X0 : \iota.(k17\_euclid \\
 X0 = k6\_numbers) \wedge ((r1\_xxreal\_0 (k18\_euclid X0) np\_1) \wedge (r1\_xxreal\_0 \\
 & \quad k6\_numbers (k18\_euclid X0)))) (\lambda X0 : \iota.X0) \wedge ((k1\_rltopsp1 \\
 & \quad (k15\_euclid np\_2) (k19\_euclid k6\_numbers np\_1) (k19\_euclid \\
 & \quad np\_1 np\_1) = ReplSep (toset (\lambda X0 : \iota.m1\_subset\_1 X0 (u1\_struct\_0 \\
 & \quad (k15\_euclid np\_2)))) (\lambda X0 : \iota.(r1\_xxreal\_0 (k17\_euclid \\
 & \quad X0) np\_1) \wedge ((r1\_xxreal\_0 k6\_numbers (k17\_euclid X0)) \wedge (k18\_euclid \\
 & \quad X0 = np\_1))) (\lambda X0 : \iota.X0) \wedge ((k1\_rltopsp1 (k15\_euclid np\_2) \\
 & (k19\_euclid k6\_numbers k6\_numbers) (k19\_euclid np\_1 k6\_numbers) = \\
 & \quad ReplSep (toset (\lambda X0 : \iota.m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid \\
 & \quad np\_2)))) (\lambda X0 : \iota.(r1\_xxreal\_0 (k17\_euclid X0) np\_1) \wedge \\
 & (r1\_xxreal\_0 k6\_numbers (k17\_euclid X0)) \wedge (k18\_euclid X0 = k6\_numbers))) \\
 & \quad (\lambda X0 : \iota.X0) \wedge (k1\_rltopsp1 (k15\_euclid np\_2) (k19\_euclid \\
 & \quad np\_1 k6\_numbers) (k19\_euclid np\_1 np\_1) = ReplSep (toset (\lambda X0 : \\
 & \quad \iota.m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2)))) (\lambda X0 : \\
 & \quad \iota.(k17\_euclid X0 = np\_1) \wedge ((r1\_xxreal\_0 (k18\_euclid X0) np\_1) \wedge \\
 & \quad (r1\_xxreal\_0 k6\_numbers (k18\_euclid X0)))) (\lambda X0 : \iota.X0)))
 \end{aligned} \tag{1}$$

Assume the following.

$$\neg v1\_xboole\_0 np\_1 \tag{2}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{3}$$

Assume the following.

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

Assume the following.

$$v1\_xboole\_0 k1\_xboole\_0 \quad (5)$$

Assume the following.

$$k1\_xboole\_0 = the (\lambda X0 : \iota.v1\_xboole\_0 X0) \quad (6)$$

**Theorem 1**

$$\neg k19\_euclid k6\_numbers k6\_numbers \in k1\_rltopsp1 (k15\_euclid np\_2) \\ (k19\_euclid k6\_numbers np\_1) (k19\_euclid np\_1 np\_1)$$