

l26_topreal2

(TMZ7e8sjwmAiXUU14qhVCxxZeX5iN32JXS8)

October 27, 2020

Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ 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 $v2_xxreal_0 : \iota \Rightarrow o$ 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 $np_0 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \tag{1}$$

Assume the following.

$$\begin{aligned} & (k1_rltopsp1 (k15_euclid np_2) (k19_euclid k6_numbers k6_numbers) \\ & (k19_euclid k6_numbers np_1) = ReplSep (toset (\lambda X0 : \iota.m1_subset_1 \\ & \quad X0 (u1_struct_0 (k15_euclid np_2)))) (\lambda X0 : \iota.(k17_euclid \\ & X0 = k6_numbers) \wedge ((r1_xxreal_0 (k18_euclid X0) np_1) \wedge (r1_xxreal_0 \\ & \quad k6_numbers (k18_euclid X0)))) (\lambda X0 : \iota.X0) \wedge ((k1_rltopsp1 \\ & \quad (k15_euclid np_2) (k19_euclid k6_numbers np_1) (k19_euclid \\ & \quad np_1 np_1) = ReplSep (toset (\lambda X0 : \iota.m1_subset_1 X0 (u1_struct_0 \\ & \quad (k15_euclid np_2)))) (\lambda X0 : \iota.(r1_xxreal_0 (k17_euclid \\ & X0) np_1) \wedge ((r1_xxreal_0 k6_numbers (k17_euclid X0)) \wedge (k18_euclid \\ & \quad X0 = np_1))) (\lambda X0 : \iota.X0) \wedge ((k1_rltopsp1 (k15_euclid np_2) \\ & (k19_euclid k6_numbers k6_numbers) (k19_euclid np_1 k6_numbers) = \\ & \quad ReplSep (toset (\lambda X0 : \iota.m1_subset_1 X0 (u1_struct_0 (k15_euclid \\ & \quad np_2)))) (\lambda X0 : \iota.(r1_xxreal_0 (k17_euclid X0) np_1) \wedge \\ & (r1_xxreal_0 k6_numbers (k17_euclid X0)) \wedge (k18_euclid X0 = k6_numbers))) \\ & \quad (\lambda X0 : \iota.X0) \wedge (k1_rltopsp1 (k15_euclid np_2) (k19_euclid \\ & \quad np_1 k6_numbers) (k19_euclid np_1 np_1) = ReplSep (toset (\lambda X0 : \\ & \quad \iota.m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2)))) (\lambda X0 : \\ & \quad \iota.(k17_euclid X0 = np_1) \wedge ((r1_xxreal_0 (k18_euclid X0) np_1) \wedge \\ & \quad (r1_xxreal_0 k6_numbers (k18_euclid X0)))) (\lambda X0 : \iota.X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$v1_xboole_0 \ np_0 \quad (4)$$

Assume the following.

$$r1_xxreal_0 \ np_1 \ np_1 \quad (5)$$

Assume the following.

$$r1_xxreal_0 \ np_0 \ np_1 \quad (6)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (7)$$

Assume the following.

$$k18_euclid \ (k19_euclid \ np_1 \ np_1) = np_1 \quad (8)$$

Assume the following.

$$k17_euclid \ (k19_euclid \ np_1 \ np_1) = np_1 \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xreal_0 \ X0) \wedge (v1_xreal_0 \ X1)) \Rightarrow (m1_subset_1 \ (k19_euclid \ X0 \ X1) \ (u1_struct_0 \ (k15_euclid \ np_2))) \quad (10)$$

Assume the following.

$$k1_xboole_0 = the \ (\lambda X0 : \iota.v1_xboole_0 \ X0) \quad (11)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (v1_xreal_0 \ X0) \quad (12)$$

Theorem 1

$$k19_euclid \ np_1 \ np_1 \in k1_rltopsp1 \ (k15_euclid \ np_2) \ (k19_euclid \ k6_numbers \ np_1) \ (k19_euclid \ np_1 \ np_1)$$