

l163_jordan (TMbAHtEQevPUjPWXGcEYopy- ShmxiGFDGvB4)

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Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ 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 $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ 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 $v1_sppol_1 : \iota \Rightarrow o$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ 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 $k4_ordinal1 : \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $v5_rltopsp1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (((v1_sppol_1 (k1_rltopsp1 (k15_euclid np_2) X0 X1)) \wedge (v1_sppol_1 \\ & (k1_rltopsp1 (k15_euclid np_2) X2 X3)) \wedge ((k18_euclid X0 = k18_euclid \\ & X2) \wedge ((r1_xxreal_0 (k17_euclid X0) (k17_euclid X2)) \wedge ((r1_xxreal_0 \\ & (k17_euclid X2) (k17_euclid X3)) \wedge (r1_xxreal_0 (k17_euclid X3) \\ & (k17_euclid X1)))))) \Rightarrow (r1_tarski (k1_rltopsp1 (k15_euclid np_2) \\ & X2 X3) (k1_rltopsp1 (k15_euclid np_2) X0 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_3) \wedge (m2_subset_1 \ np_3 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_3 \ k5_numbers) \wedge (m1_subset_1 \ np_3 \ k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_2) \wedge (m2_subset_1 \ np_2 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_2 \ k5_numbers) \wedge (m1_subset_1 \ np_2 \ k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$v1_xboole_0 \ np_0 \quad (6)$$

Assume the following.

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

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (8)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (k1_real_1 \ X0 = k4_xcmplx_0 \ X0) \quad (9)$$

Assume the following.

$$\exists X0. (v1_xboole_0 \ X0) \wedge ((v1_xcmplx_0 \ X0) \wedge ((v1_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0))) \quad (10)$$

Assume the following.

$$\begin{aligned} & r1_xxreal_0 \ (k17_euclid \ (k19_euclid \ k6_numbers \ (k1_real_1 \ np_3))) \\ & \quad (k17_euclid \ (k19_euclid \ np_1 \ (k1_real_1 \ np_3))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & r1_xxreal_0 \ (k17_euclid \ (k19_euclid \ (k1_real_1 \ np_1) \ (k1_real_1 \\ & \quad np_3))) \ (k17_euclid \ (k19_euclid \ k6_numbers \ (k1_real_1 \ np_3))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & v1_sppol_1 \ (k1_rltopsp1 \ (k15_euclid \ np_2) \ (k19_euclid \ (k1_real_1 \\ & \quad np_1) \ (k1_real_1 \ np_3))) \ (k19_euclid \ np_1 \ (k1_real_1 \ np_3))) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} & v1_sppol_1 \ (k1_rltopsp1 \ (k15_euclid \ np_2) \ (k19_euclid \ np_1 \\ & \quad (k1_real_1 \ np_3))) \ (k19_euclid \ k6_numbers \ (k1_real_1 \ np_3))) \end{aligned} \quad (14)$$

Assume the following.

$$k17_euclid (k19_euclid np_1 (k1_real_1 np_3)) = np_1 \quad (15)$$

Assume the following.

$$k18_euclid (k19_euclid (k1_real_1 np_1) (k1_real_1 np_3)) = k1_real_1 np_3 \quad (16)$$

Assume the following.

$$k17_euclid (k19_euclid (k1_real_1 np_1) (k1_real_1 np_3)) = k1_real_1 np_1 \quad (17)$$

Assume the following.

$$k18_euclid (k19_euclid k6_numbers (k1_real_1 np_3)) = k1_real_1 np_3 \quad (18)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (19)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow & ((v2_pre_topc (k15_euclid X0)) \wedge \\ & ((v13_algstr_0 (k15_euclid X0)) \wedge ((v2_rlvect_1 (k15_euclid X0)) \wedge \\ & ((v3_rlvect_1 (k15_euclid X0)) \wedge ((v4_rlvect_1 (k15_euclid X0)) \wedge \\ & ((v5_rlvect_1 (k15_euclid X0)) \wedge ((v6_rlvect_1 (k15_euclid X0)) \wedge \\ & ((v7_rlvect_1 (k15_euclid X0)) \wedge ((v8_rlvect_1 (k15_euclid X0)) \wedge \\ & (v5_rltopsp1 (k15_euclid X0)))))))))) \end{aligned} \quad (20)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((\neg v2_struct_0 (k15_euclid X0)) \wedge (v5_rltopsp1 (k15_euclid X0))) \quad (21)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((v1_xcmplx_0 (k4_xcmplx_0 X0)) \wedge (v1_xreal_0 (k4_xcmplx_0 X0))) \quad (22)$$

Assume the following.

$$\forall X0.(l1_rltopsp1 X0) \Rightarrow ((l1_rlvect_1 X0) \wedge (l1_pre_topc X0)) \quad (23)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k19_euclid X0 X1) (u1_struct_0 (k15_euclid np_2))) \quad (24)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((v5_rltopsp1 (k15_euclid X0)) \wedge (l1_rltopsp1 (k15_euclid X0))) \quad (25)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 X0 X1) \vee (r1_xxreal_0 X1 X0) \quad (26)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge \\ ((v5_rlvect_1 X0) \wedge (v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (l1_rlvect_1 X0)))))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 X0))) \Rightarrow (k1_rltopsp1 X0 X1 X2 = \\ k1_rltopsp1 X0 X2 X1) \end{aligned} \quad (27)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (28)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (29)$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (30)$$

Theorem 1

$$\begin{aligned} r1_tarski (k1_rltopsp1 (k15_euclid np_2) (k19_euclid np_1 (\\ k1_real_1 np_3)) (k19_euclid k6_numbers (k1_real_1 np_3))) \\ (k1_rltopsp1 (k15_euclid np_2) (k19_euclid (k1_real_1 np_1) \\ (k1_real_1 np_3)) (k19_euclid np_1 (k1_real_1 np_3))) \end{aligned}$$