

t27_jordan19 (TMUSEBnkoeyPUpnCab- mVfJDw9nFEuLGESg8)

October 27, 2020

Let $v1_topreal2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k8_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k3_jordan19 : \iota \Rightarrow \iota$ be given. Let $k4_jordan19 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_compts_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_sppol_1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_sppol_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v1_xboole_0 X0) \wedge ((v2_compts_1 X0 (k15_euclid np_2)) \wedge \\ &((\neg v2_sppol_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ &(k15_euclid np_2)))))) \Rightarrow (\neg r1_xxreal_0 (k8_pscomp_1 X0) (k6_pscomp_1 \\ &X0)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (&(v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ &(k15_euclid np_2)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ &(k15_euclid np_2))) \Rightarrow (\neg (\neg r1_xxreal_0 (k17_euclid X1) (k6_pscomp_1 \\ &X0)) \wedge ((\neg r1_xxreal_0 (k8_pscomp_1 X0) (k17_euclid X1)) \wedge ((X1 \in \\ &k3_jordan19 X0) \wedge (X1 \in k4_jordan19 X0)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. (&(v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow ((\neg r1_xxreal_0 \\ &X1 X0) \Rightarrow ((\neg r1_xxreal_0 (k7_xcmplx_0 (k2_xcmplx_0 X0 X1) np_2) \\ &X0) \wedge (\neg r1_xxreal_0 X1 (k7_xcmplx_0 (k2_xcmplx_0 X0 X1) np_2)))))) \end{aligned} \tag{3}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(k7_real_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(k10_real_1 X0 X1 = k7_xcmplx_0 X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))\Rightarrow(m1_subset_1 (k8_pscomp_1 X0) k1_numbers) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(m1_subset_1 (k7_real_1 X0 X1) k1_numbers) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))\Rightarrow(m1_subset_1 (k6_pscomp_1 X0) k1_numbers) \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))\Rightarrow((v1_xboole_0 X0)\Rightarrow(v2_sppol_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))\Rightarrow((v1_topreal2 X0)\Rightarrow((v1_topreal2 X0)\wedge((\neg v1_sppol_1 X0)\wedge(\neg v2_sppol_1 X0)))) \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))\Rightarrow((v1_topreal2 X0)\Rightarrow((\neg v1_xboole_0 X0)\wedge(v2_compts_1 X0 (k15_euclid np_2)))) \quad (13)$$

Theorem 1

$$\forall X0.((v1_topreal2 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))\Rightarrow(\neg(k17_euclid X1 = k10_real_1 (k7_real_1 (k6_pscomp_1 X0) (k8_pscomp_1 X0) np_2))\wedge((X1 \in k3_jordan19 X0)\wedge(X1 \in k4_jordan19 X0))))$$