

t13_jordan16 (TMKZ- zgVwMjw2zrrJfLVCzp3jrbZmKXLXFGm)

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 $r1_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & (k15_euclid np_2)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ & (k15_euclid np_2)))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ & (k15_euclid np_2)))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\ & (k15_euclid np_2)))) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 \\ & (k15_euclid np_2)))) \Rightarrow (\neg(r1_topreal1 (k15_euclid np_2) X2 X3 \\ & X0) \wedge ((k9_subset_1 (u1_struct_0 (k15_euclid np_2)) X0 X1 = k2_tarski \\ & X4 X5) \wedge (X0 = X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ & (k15_euclid np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (((r1_topreal1 \\ & (k15_euclid np_2) X3 X4 X1) \wedge ((r1_topreal1 (k15_euclid np_2) \\ & X3 X4 X2) \wedge ((r1_tarski X1 X0) \wedge (r1_tarski X2 X0)))) \Rightarrow ((X1 = X2) \vee ((\\ & k4_subset_1 (u1_struct_0 (k15_euclid np_2)) X1 X2 = X0) \wedge (k9_subset_1 \\ & (u1_struct_0 (k15_euclid np_2)) X1 X2 = k2_tarski X3 X4)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow (k9_subset_1 X0 X1 X1 = X1) \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ & (k15_euclid np_2)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (((r1_topreal1 \\ & (k15_euclid np_2) X3 X4 X1) \wedge ((r1_topreal1 (k15_euclid np_2) \\ & X3 X4 X2) \wedge ((r1_tarski X1 X0) \wedge ((r1_tarski X2 X0) \wedge (k9_subset_1 (\\ & u1_struct_0 (k15_euclid np_2)) X1 X2 = k2_tarski X3 X4)))))) \Rightarrow (k4_subset_1 \\ & (u1_struct_0 (k15_euclid np_2)) X1 X2 = X0)))))) \end{aligned}$$