

t22_jordan17 (TMGynZ- NaVQwJqkArNz6p9L4zPQwHjgVCUCG)

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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 $r1_jordan17 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (((v1_topreal2 X0) \wedge ((r1_jordan6 X0 X1 X2) \wedge (r1_jordan6 \\ X0 X2 X1))) \Rightarrow (X1 = X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow ((r1_jordan17 X0 X1 X2 X3 X4) \Leftrightarrow (\neg(\neg(r1_jordan6 X0 X1 X2) \wedge \\ ((r1_jordan6 X0 X2 X3) \wedge (r1_jordan6 X0 X3 X4))) \wedge (\neg(r1_jordan6 \\ X0 X2 X3) \wedge (r1_jordan6 X0 X3 X4) \wedge (r1_jordan6 X0 X4 X1))) \wedge (\neg(r1_jordan6 \\ X0 X3 X4) \wedge (r1_jordan6 X0 X4 X1) \wedge (r1_jordan6 X0 X1 X2))) \wedge (\neg(r1_jordan6 \\ X0 X4 X1) \wedge (r1_jordan6 X0 X1 X2) \wedge (r1_jordan6 X0 X2 X3)))))))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} \forall X0.(((v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ (k15_euclid np_2)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ (k15_euclid np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ (k15_euclid np_2))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ (k15_euclid np_2))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\ (k15_euclid np_2))) \Rightarrow (((r1_jordan17 X0 X1 X2 X3 X4) \wedge (r1_jordan17 \\ X0 X3 X2 X1 X4)) \Rightarrow ((X1 = X2) \vee ((X2 = X3) \vee ((X3 = X4) \vee (X1 = X3)))))))))) \end{aligned}$$