

t9_jordan5b

(TMd4g3Hi1AmTvk3ZUR61Hm3SZG5aRPC6DuK)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k1_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_jordan3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (((X2 \in k1_rltopsp1 (k15_euclid np_2) X0 X1) \wedge (X3 \in k1_rltopsp1 \\
 & (k15_euclid np_2) X0 X1)) \Rightarrow ((X0 = X1) \vee ((r2_jordan3 X0 X1 X2 X3) \vee \\
 & (r3_jordan3 X0 X1 X3 X2)) \wedge (\neg(r2_jordan3 X0 X1 X2 X3) \wedge (r3_jordan3 \\
 & X0 X1 X3 X2)))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & ((r3_jordan3 X0 X1 X2 X3) \Leftrightarrow ((r2_jordan3 X0 X1 X2 X3) \wedge (X2 \neq X3))))))
 \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & ((X2 \in k1_rltopsp1 (k15_euclid np_2) X0 X1) \Rightarrow ((X0 = X1) \vee (r2_jordan3 \\
 & X0 X1 X2 X2))))))
 \end{aligned}$$