

t11_jordan21

(TMWbsr6ftgL8svq6XpX1vbfzDaBRbtuWbgS)

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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 $k5_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\neg(r1_topreal1 (k15_euclid np_2) X1 X2 X0) \wedge ((X3 \neq X1) \wedge \\ (X1 \in k4_jordan6 X0 X1 X2 X3))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\neg(r1_topreal1 (k15_euclid np_2) X1 X2 X0) \wedge ((X3 \neq X2) \wedge \\ (X2 \in k3_jordan6 X0 X1 X2 X3))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow (k9_subset_1 X0 X1 X2 = k3_xboole_0 X1 X2) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1 X0 \\ (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \wedge ((m1_subset_1 \\ X1 (u1_struct_0 (k15_euclid np_2))) \wedge ((m1_subset_1 X2 (u1_struct_0 \\ (k15_euclid np_2))) \wedge (m1_subset_1 X3 (u1_struct_0 (k15_euclid \\ np_2)))))) \Rightarrow (m1_subset_1 (k3_jordan6 X0 X1 X2 X3) (k1_zfmisc_1 \\ (u1_struct_0 (k15_euclid np_2)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (k5_jordan6 X0 X1 X2 X3 X4 = k9_subset_1 (u1_struct_0 (\\
& \quad k15_euclid np_2)) (k4_jordan6 X0 X1 X2 X3) (k3_jordan6 X0 X1 X2 X4))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.(X2 = k3_xboole_0 X0 X1) \Leftrightarrow (\forall X3. \\
& \quad (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1)))
\end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow ((r1_topreal1 (k15_euclid np_2) X1 X2 X0) \Rightarrow ((X1 = X3) \vee \\
& \quad ((X2 = X4) \vee ((\neg X1 \in k5_jordan6 X0 X1 X2 X3 X4) \wedge (\neg X2 \in k5_jordan6 X0 X1 \\
& \quad X2 X3 X4)))))))))
\end{aligned}$$