

t29_jordan1
(TMQWCb9YFXZwaoAC8B3L4hZjiVCpBK3TSbR)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ 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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& \quad X1 k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (\forall X3. \\
& \quad (m1_subset_1 X3 k1_numbers) \Rightarrow (ReplSep (toset (\lambda X4 : \iota.m1_subset_1 \\
& \quad \quad X4 (u1_struct_0 (k15_euclid np_2)))) (\lambda X4 : \iota.(\neg r1_xxreal_0 \\
& \quad (k17_euclid X4) X0) \wedge ((\neg r1_xxreal_0 X1 (k17_euclid X4)) \wedge ((\neg r1_xxreal_0 \\
& \quad (k18_euclid X4) X2) \wedge (\neg r1_xxreal_0 X3 (k18_euclid X4)))))) (\lambda X4 : \\
& \quad \iota.X4) = ReplSep2 (toset (\lambda X4 : \iota.m1_subset_1 X4 k1_numbers)) \\
& \quad (\lambda X4 : \iota.toset (\lambda X5 : \iota.m1_subset_1 X5 k1_numbers)) (\\
& \quad \quad \lambda X4 : \iota.\lambda X5 : \iota.(\neg r1_xxreal_0 X4 X0) \wedge ((\neg r1_xxreal_0 \\
& \quad X1 X4) \wedge ((\neg r1_xxreal_0 X5 X2) \wedge (\neg r1_xxreal_0 X3 X5)))) (\lambda X4 : \\
& \quad \quad \iota.\lambda X5 : \iota.k19_euclid X4 X5))))))
\end{aligned} \tag{1}$$

Assume the following.

$$u1_struct_0 (k15_euclid np_2) = k1_euclid np_2 \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& \quad X1 k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (\forall X3. \\
& \quad (m1_subset_1 X3 k1_numbers) \Rightarrow (m1_subset_1 (ReplSep2 (toset (\lambda X4 : \\
& \quad \quad \iota.m1_subset_1 X4 k1_numbers)) (\lambda X4 : \iota.toset (\lambda X5 : \iota. \\
& \quad \quad m1_subset_1 X5 k1_numbers)) (\lambda X4 : \iota.\lambda X5 : \iota.(\neg r1_xxreal_0 \\
& \quad X4 X0) \wedge ((\neg r1_xxreal_0 X1 X4) \wedge ((\neg r1_xxreal_0 X5 X2) \wedge (\neg r1_xxreal_0 \\
& \quad X3 X5)))) (\lambda X4 : \iota.\lambda X5 : \iota.k19_euclid X4 X5)) (k1_zfmisc_1 \\
& \quad \quad (k1_euclid np_2))))))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & \quad X1\ k1_numbers) \Rightarrow (\forall X2.(m1_subset_1\ X2\ k1_numbers) \Rightarrow (\forall X3. \\ & (m1_subset_1\ X3\ k1_numbers) \Rightarrow (m1_subset_1\ (ReplSep\ (toset\ (\lambda X4 : \\ & \quad \iota.m1_subset_1\ X4\ (u1_struct_0\ (k15_euclid\ np_2))))))\ (\lambda X4 : \\ & \quad \iota.(\neg r1_xxreal_0\ (k17_euclid\ X4)\ X0) \wedge ((\neg r1_xxreal_0\ X1\ (k17_euclid \\ & \quad X4)) \wedge ((\neg r1_xxreal_0\ (k18_euclid\ X4)\ X2) \wedge (\neg r1_xxreal_0\ X3\ (k18_euclid \\ & \quad X4))))))\ (\lambda X4 : \iota.X4))\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid \\ & \quad np_2)))))) \end{aligned}$$