

t27_metric_2 (TMNgcd- brZ2cXQCNxWbyejpFb5eZAyJBBDNj)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_metric_1 : \iota \Rightarrow o$ be given. Let $v8_metric_1 : \iota \Rightarrow o$ be given. Let $v9_metric_1 : \iota \Rightarrow o$ be given. Let $l1_metric_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_metric_2 : \iota \Rightarrow \iota$ be given. Let $k7_metric_2 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $r4_metric_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_metric_1 X0)) \Rightarrow (k7_metric_2 \\
 & X0 = ReplSep (toset (\lambda X1 : \iota. m1_subset_1 X1 (k2_metric_2 X0))) \\
 & (\lambda X1 : \iota. \exists X2. (m1_subset_1 X2 (k2_metric_2 X0)) \wedge (\exists X3. \\
 & (m1_subset_1 X3 k1_numbers) \wedge (r4_metric_2 X0 X2 X1 X3))) (\lambda X1 : \\
 & \iota. X1)) \tag{1}
 \end{aligned}$$

Theorem 1

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v6_metric_1 X0) \wedge ((v8_metric_1 \\
 & X0) \wedge ((v9_metric_1 X0) \wedge (l1_metric_1 X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\
 & X1 (k2_metric_2 X0)) \Rightarrow ((X1 \in k7_metric_2 X0) \Leftrightarrow (\exists X2. (m1_subset_1 \\
 & X2 (k2_metric_2 X0)) \wedge (\exists X3. (m1_subset_1 X3 k1_numbers) \wedge \\
 & (r4_metric_2 X0 X2 X1 X3))))))
 \end{aligned}$$