

t19_metric_2
(TMZ2KE5KdLHrtfXh1AqjFhXHKS57LtsbxYR)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_metric_1 : \iota \Rightarrow o$ be given. Let $v7_metric_1 : \iota \Rightarrow o$ 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 $k2_metric_2 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_metric_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge (l1_metric_1 X1)) \Rightarrow \\ & ((X0 \in k2_metric_2 X1) \Leftrightarrow (\exists X2. (m1_subset_1 X2 (u1_struct_0 \\ & X1)) \wedge (X0 = k1_metric_2 X1 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v6_metric_1 X0) \wedge ((v7_metric_1 \\ & X0) \wedge ((v8_metric_1 X0) \wedge ((v9_metric_1 X0) \wedge (l1_metric_1 X0)))))) \Rightarrow \\ & (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k1_metric_2 X0 \\ & X1 = k6_domain_1 (u1_struct_0 X0) X1)) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v6_metric_1 X1) \wedge \\ & ((v7_metric_1 X1) \wedge ((v8_metric_1 X1) \wedge ((v9_metric_1 X1) \wedge (l1_metric_1 \\ & X1)))))) \Rightarrow ((X0 \in k2_metric_2 X1) \Leftrightarrow (\exists X2. (m1_subset_1 X2 (\\ & u1_struct_0 X1)) \wedge (X0 = k6_domain_1 (u1_struct_0 X1) X2))) \end{aligned}$$