

t11_metric_2

(TMaEPL7qTT7936p4RjjLqMXHZMqQzNKcBGf)

October 27, 2020

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 $l1_metric_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r2_metric_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_metric_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $r1_metric_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(l1_metric_1 X0) \Rightarrow ((\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k2_metric_1 \\ X0 X1 X2 = k6_numbers) \Rightarrow (X1 = X2)))) \Leftrightarrow (v7_metric_1 X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0) \wedge ((v6_metric_1 \\ X0) \wedge (l1_metric_1 X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (\\ m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow ((r2_metric_2 X0 X1 X2) \Leftrightarrow (r1_metric_2 \\ X0 X1 X2)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v6_metric_1 X0) \wedge (l1_metric_1 \\ X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (r2_metric_2 \\ X0 X1 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_metric_1 X0)) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ (u1_struct_0 X0)) \Rightarrow ((r1_metric_2 X0 X1 X2) \Leftrightarrow (k2_metric_1 X0 X1 X2 = \\ k6_numbers)))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0.(((\neg v2_struct_0 X0) \wedge ((v6_metric_1 X0) \wedge ((v7_metric_1 \\ X0) \wedge (l1_metric_1 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r2_metric_2 \\ X0 X1 X2) \Leftrightarrow (X1 = X2)))) \end{aligned}$$