

l8_topmetr
(TMTF7Zp8GkjtEvMdWeAWh7BrFonwbr58aAC)

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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 $g1_metric.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ be given. Let $u1_metric.1 : \iota \Rightarrow \iota$ be given. Let $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v1_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc.1 : \iota \Rightarrow \iota$ be given. Let $v1_metric.1 : \iota \Rightarrow o$ be given. Let $v5_metric.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_metric.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_metric.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_metric.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_funct.1 X1) \wedge ((v1_funct.2 X1 (k2_zfmisc.1 \\ & X0 X0) k1_numbers) \wedge (m1_subset.1 X1 (k1_zfmisc.1 (k2_zfmisc.1 \\ & (k2_zfmisc.1 X0 X0) k1_numbers)))))) \Rightarrow (\forall X2. \forall X3. (\\ & g1_metric.1 X0 X1 = g1_metric.1 X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_metric.1 X0) \Rightarrow ((v1_funct.1 (u1_metric.1 X0)) \wedge \\ & ((v1_funct.2 (u1_metric.1 X0) (k2_zfmisc.1 (u1_struct.0 X0) (\\ & u1_struct.0 X0)) k1_numbers) \wedge (m1_subset.1 (u1_metric.1 X0) (\\ & k1_zfmisc.1 (k2_zfmisc.1 (k2_zfmisc.1 (u1_struct.0 X0) (u1_struct.0 \\ & X0)) k1_numbers)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_funct.1 X1) \wedge ((v1_funct.2 X1 (k2_zfmisc.1 \\ & X0 X0) k1_numbers) \wedge (m1_subset.1 X1 (k1_zfmisc.1 (k2_zfmisc.1 \\ & (k2_zfmisc.1 X0 X0) k1_numbers)))))) \Rightarrow ((v1_metric.1 (g1_metric.1 \\ & X0 X1)) \wedge (l1_metric.1 (g1_metric.1 X0 X1))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_metric.1 X0) \Rightarrow ((v9_metric.1 X0) \Leftrightarrow (v5_metric.1 \\ & (u1_metric.1 X0) (u1_struct.0 X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(l1_metric_1 X0) \Rightarrow ((v8_metric_1 X0) \Leftrightarrow (v4_metric_1 (u1_metric_1 X0) (u1_struct_0 X0))) \quad (5)$$

Assume the following.

$$\forall X0.(l1_metric_1 X0) \Rightarrow ((v7_metric_1 X0) \Leftrightarrow (v3_metric_1 (u1_metric_1 X0) (u1_struct_0 X0))) \quad (6)$$

Assume the following.

$$\forall X0.(l1_metric_1 X0) \Rightarrow ((v6_metric_1 X0) \Leftrightarrow (v2_metric_1 (u1_metric_1 X0) (u1_struct_0 X0))) \quad (7)$$

Assume the following.

$$\forall X0.(l1_metric_1 X0) \Rightarrow ((v1_metric_1 X0) \Rightarrow (X0 = g1_metric_1 (u1_struct_0 X0) (u1_metric_1 X0))) \quad (8)$$

Theorem 1

$$\forall X0.((v6_metric_1 X0) \wedge ((v7_metric_1 X0) \wedge ((v8_metric_1 X0) \wedge ((v9_metric_1 X0) \wedge (l1_metric_1 X0))))) \Rightarrow ((v6_metric_1 (g1_metric_1 (u1_struct_0 X0) (u1_metric_1 X0))) \wedge ((v7_metric_1 (g1_metric_1 (u1_struct_0 X0) (u1_metric_1 X0))) \wedge ((v8_metric_1 (g1_metric_1 (u1_struct_0 X0) (u1_metric_1 X0))) \wedge ((v9_metric_1 (g1_metric_1 (u1_struct_0 X0) (u1_metric_1 X0))) \wedge (l1_metric_1 (g1_metric_1 (u1_struct_0 X0) (u1_metric_1 X0)))))))$$