

t23_pcs_0
(TMGQzPbPXNyZ1orHzixSJnWF466RYYQxpPy)

October 27, 2020

Let $l2_pcs_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k19_pcs_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $r1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_pcs_0 : \iota \Rightarrow \iota$ be given. Let $l1_pcs_0 : \iota \Rightarrow o$ be given. Let $v12_pcs_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(l1_orders_2 X1) \Rightarrow (\forall X2. \\ (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X1)) \Rightarrow \\ (\forall X5.(m1_subset_1 X5 (u1_struct_0 X1)) \Rightarrow (((r1_relset_1 \\ (u1_struct_0 X0) (u1_struct_0 X0) (u1_orders_2 X0) (u1_orders_2 \\ X1)) \wedge ((X2 = X4) \wedge ((X3 = X5) \wedge (r1_orders_2 X0 X2 X3)))) \Rightarrow (r1_orders_2 \\ X1 X4 X5))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(l2_pcs_0 X0) \Rightarrow (\forall X1.(r1_tarski (u1_struct_0 \\ X0) (u1_struct_0 (k19_pcs_0 X0 X1))) \wedge ((r1_relset_1 (u1_struct_0 \\ X0) (u1_struct_0 X0) (u1_orders_2 X0) (u1_orders_2 (k19_pcs_0 \\ X0 X1))) \wedge (r1_relset_1 (u1_struct_0 X0) (u1_struct_0 X0) (u1_pcs_0 \\ X0) (u1_pcs_0 (k19_pcs_0 X0 X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(l2_pcs_0 X0) \Rightarrow ((l1_orders_2 X0) \wedge (l1_pcs_0 X0)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(l2_pcs_0 X0) \Rightarrow ((v12_pcs_0 (k19_pcs_0 X0 \\ X1)) \wedge (l2_pcs_0 (k19_pcs_0 X0 X1))) \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.(l2_pcs_0 X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k19_pcs_0 X0 X1))) \Rightarrow \\ & (\forall X5.(m1_subset_1 X5 (u1_struct_0 (k19_pcs_0 X0 X1))) \Rightarrow \\ & (((X2 = X4) \wedge ((X3 = X5) \wedge (r1_orders_2 X0 X2 X3))) \Rightarrow (r1_orders_2 (k19_pcs_0 \\ & X0 X1) X4 X5)))))) \end{aligned}$$