

t18_substlat
 (TMdLuQCtY16T6u2z1TANqaQirtCswNyPgup)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finsub_1 : \iota \Rightarrow \iota$ be given. Let $k4_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_substlat : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k5_finsub_1 \\ & (k4_partfun1 X0 X1))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k5_finsub_1 \\ & (k4_partfun1 X0 X1))) \Rightarrow (k4_substlat X0 X1 X2 X3 = k4_substlat X0 X1 \\ & X3 X2)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k5_finsub_1 \\ & (k4_partfun1 X0 X1))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k5_finsub_1 \\ & (k4_partfun1 X0 X1))) \Rightarrow (\forall X4. (m1_subset_1 X4 (k5_finsub_1 \\ & (k4_partfun1 X0 X1))) \Rightarrow ((r1_tarski X2 X3) \Rightarrow (r1_tarski (k4_substlat \\ & X0 X1 X2 X4) (k4_substlat X0 X1 X3 X4)))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k5_finsub_1 \\ & (k4_partfun1 X0 X1))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k5_finsub_1 \\ & (k4_partfun1 X0 X1))) \Rightarrow (\forall X4. (m1_subset_1 X4 (k5_finsub_1 \\ & (k4_partfun1 X0 X1))) \Rightarrow ((r1_tarski X2 X3) \Rightarrow (r1_tarski (k4_substlat \\ & X0 X1 X4 X2) (k4_substlat X0 X1 X4 X3)))))) \end{aligned}$$