

# t8\_substlat (TMSTH- hQVP3Y2vVA2Q3ytCNtBB2v1evABGaC)

October 27, 2020

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  $k3\_substlat : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k5\_finsub\_1 \\ & (k4\_partfun1 X0 X1))) \Rightarrow (\forall X3. (X3 \in k3\_substlat X0 X1 X2) \Rightarrow ( \\ & (X3 \in X2) \wedge (\forall X4. ((X4 \in X2) \wedge (r1\_tarski X4 X3)) \Rightarrow (X4 = X3)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (2)$$

## Theorem 1

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k5\_finsub\_1 (k4\_partfun1 X0 X1))) \Rightarrow (r1\_tarski (k3\_substlat X0 X1 X2) X2)$$