

t12_armstrng (TMZ- Fyp6jaPUtq24Qr2uQLSMH2P5dWUczgXt)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_armstrng : \iota \Rightarrow \iota$ be given. Let $r3_armstrng : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k4_armstrng X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k4_armstrng X0)) \Rightarrow ((r3_armstrng X0 X1 X2) \Leftrightarrow ((r1_tarski \\ & (k1_xtuple_0 X1) (k1_xtuple_0 X2)) \wedge (r1_tarski (k2_xtuple_0 X2) \\ & (k2_xtuple_0 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k4_armstrng X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k4_armstrng X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & (k4_armstrng X0)) \Rightarrow (((r3_armstrng X0 X2 X1) \wedge (r3_armstrng X0 X3 \\ & X2)) \Rightarrow (r3_armstrng X0 X3 X1)))))) \end{aligned}$$