

t136_funct_7
(TMbEJhQNsaAAw5qSjf7jAsX4UJDUDixjat7e)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 \\ & X2)) \Rightarrow (\forall X3. ((v1_relat_1 X3) \wedge (v1_funct_1 X3)) \Rightarrow (((k9_xtuple_0 \\ & X2 = k9_xtuple_0 X3) \wedge ((r1_tarski (k9_xtuple_0 X2) (k2_xboole_0 \\ & X0 X1)) \wedge (k5_relat_1 X2 X1 = k5_relat_1 X3 X1))) \Rightarrow (r1_funct_7 X2 X3 \\ & X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k1_relset_1 X0 X1 = k9_xtuple_0 X1) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow ((v1_partfun1 X1 X0) \Leftrightarrow (k1_relset_1 X0 X1 = X0)) \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_relat_1 X3) \wedge \\ & ((v4_relat_1 X3 X0) \wedge ((v1_funct_1 X3) \wedge (v1_partfun1 X3 X0)))) \Rightarrow \\ & (\forall X4. ((v1_relat_1 X4) \wedge ((v4_relat_1 X4 X0) \wedge ((v1_funct_1 \\ & X4) \wedge (v1_partfun1 X4 X0)))) \Rightarrow (((r1_tarski X0 (k2_xboole_0 X1 X2)) \wedge \\ & (k5_relat_1 X3 X2 = k5_relat_1 X4 X2)) \Rightarrow (r1_funct_7 X3 X4 X1))) \end{aligned}$$