

t19_funct_4 (TMapqY- pUKuaf9yXNMw5WAuofRDXnhtifuJe)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Rightarrow (k2_xboole_0 X0 X1 = X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((\\ & \quad v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge \\ & (v1_funct_1 X2)) \Rightarrow ((X2 = k1_funct_4 X0 X1) \Leftrightarrow ((k9_xtuple_0 X2 = k2_xboole_0 \\ & \quad (k9_xtuple_0 X0) (k9_xtuple_0 X1)) \wedge (\forall X3. (X3 \in k2_xboole_0 \\ & (k9_xtuple_0 X0) (k9_xtuple_0 X1)) \Rightarrow ((X3 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 \\ & \quad X2 X3 = k1_funct_1 X1 X3)) \wedge ((\neg X3 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 X2 \\ & \quad X3 = k1_funct_1 X0 X3))))))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((\\ & \quad v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((r1_tarski (k9_xtuple_0 X0) \\ & \quad (k9_xtuple_0 X1)) \Rightarrow (k1_funct_4 X0 X1 = X1))) \end{aligned}$$