

t131_funct_7

(TMc6UYUmknKUNXVgJ83hmXqFrKdo4JpyDX)

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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 $r1_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (k4_xboole_0 X0 X1 = k1_xboole_0) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((r1_tarski (k9_xtuple_0 X2) X0) \Rightarrow (k6_subset_1 X2 (k5_relat_1 X2 X1) = k5_relat_1 X2 (k6_subset_1 X0 X1))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski X0 X0 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k5_relat_1 X1 X0 = X1) \quad (5)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. (r1_funct_7 X0 X1 X2) \Leftrightarrow (k5_relat_1 X0 (k6_subset_1 (k9_xtuple_0 X0) X2) = k5_relat_1 X1 (k6_subset_1 (k9_xtuple_0 X1) X2)))) \quad (6)$$

Theorem 1

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge((v4_relat_1 X1 X0)\wedge(v1_funct_1 X1)))\Rightarrow(\forall X2.((v1_relat_1 X2)\wedge((v4_relat_1 X2 X0)\wedge(v1_funct_1 X2)))\Rightarrow(r1_funct_7 X1 X2 X0))$$