

t77_funct_1 (TMdPMphB- jznyKBTqK3vfSGDxA4xF'Z9g5mLL)

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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 $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k7_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (k6_relat_1 X0 X1 = k3_relat_1 X1 (k4_relat_1 X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow ((r1_tarski X0 (k10_xtuple_0 X1)) \Rightarrow (k10_xtuple_0 (k6_relat_1 X0 X1) = X0)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (r1_tarski (k7_relat_1 X1 (k8_relat_1 X1 X0)) X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow (k7_relat_1 (k6_relat_1 X0 X2) X1 = k3_xboole_0 X0 (k7_relat_1 X2 X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k4_xboole_0 X0 (k4_xboole_0 X0 X1) = k3_xboole_0 X0 X1 \quad (5)$$

Assume the following.

$$\forall X0. (k9_xtuple_0 (k4_relat_1 X0) = X0) \wedge (k10_xtuple_0 (k4_relat_1 X0) = X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski\ X0\ X1)\Rightarrow(k3_xboole_0\ X0\ X1 = X0) \quad (7)$$

Assume the following.

$$\forall X0.(v1_relat_1\ X0)\Rightarrow(\forall X1.(v1_relat_1\ X1)\Rightarrow(k9_xtuple_0\ (k3_relat_1\ X0\ X1) = k8_relat_1\ X0\ (k9_xtuple_0\ X1))) \quad (8)$$

Assume the following.

$$\forall X0.(v1_relat_1\ X0)\Rightarrow(k7_relat_1\ X0\ (k9_xtuple_0\ X0) = k10_xtuple_0\ X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1\ X1)\wedge(v1_funct_1\ X1))\Rightarrow((v1_relat_1\ (k6_relat_1\ X0\ X1))\wedge(v1_funct_1\ (k6_relat_1\ X0\ X1))) \quad (10)$$

Assume the following.

$$\forall X0.v1_relat_1\ (k4_relat_1\ X0) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k3_xboole_0\ X0\ X1 = k3_xboole_0\ X1\ X0 \quad (12)$$

Theorem 1

$$\forall X0.\forall X1.((v1_relat_1\ X1)\wedge(v1_funct_1\ X1))\Rightarrow((r1_tarski\ X0\ (k10_xtuple_0\ X1))\Rightarrow(k7_relat_1\ X1\ (k8_relat_1\ X1\ X0) = X0))$$