

t23_funct_6

(TMHe8BWp7p3FYZmtm3KsQdr1RXmSVTojk9g)

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Let $k2_funct_6 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k3_funct_6 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k8_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_6 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$(k9_xtuple_0 k1_xboole_0 = k1_xboole_0) \wedge (k10_xtuple_0 k1_xboole_0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (3)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. (X2 = k8_relat_1 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in k9_xtuple_0 X0) \wedge (k1_funct_1 X0 X3 \in X1)))) \quad (4)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X1 = k3_funct_6 X0) \Leftrightarrow ((k9_xtuple_0 X1 = k8_relat_1 X0 (k1_funct_6 (k10_xtuple_0 X0))) \wedge (\forall X2. (X2 \in k8_relat_1 X0 (k1_funct_6 (k10_xtuple_0 X0))) \Rightarrow (k1_funct_1 X1 X2 = k10_xtuple_0 (k1_funct_1 X0 X2)))))) \quad (5)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X1 = k2_funct_6 X0) \Leftrightarrow ((k9_xtuple_0 X1 = k8_relat_1 X0 (k1_funct_6 (k10_xtuple_0 X0))) \wedge (\forall X2. (X2 \in k8_relat_1 X0 (k1_funct_6 (k10_xtuple_0 X0))) \Rightarrow (k1_funct_1 X1 X2 = k9_xtuple_0 (k1_funct_1 X0 X2)))))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_funct_6 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow ((X2 \in X0) \wedge ((v1_relat_1 X2) \wedge (v1_funct_1 X2)))) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_relat_1 X0) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_funct_1 X0) \quad (9)$$

Theorem 1

$$(k2_funct_6 k1_xboole_0 = k1_xboole_0) \wedge (k3_funct_6 k1_xboole_0 = k1_xboole_0)$$