

t5_funct_1

(TMcTSjSfERa4GUU98egU4BK8fxAZscDqZXt)

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Let $k1_xboole_0 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow ((k9_xtuple_0 X0 = k1_xboole_0) \Leftrightarrow (k10_xtuple_0 X0 = k1_xboole_0)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\neg(X0 \neq k1_tarski X1) \wedge ((X0 \neq k1_xboole_0) \wedge (\forall X2.\neg(X2 \in X0) \wedge (X2 \neq X1))) \quad (2)$$

Assume the following.

$$\forall X0 : \iota \Rightarrow \iota.\forall X1.\exists X2.((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \wedge ((k9_xtuple_0 X2 = X1) \wedge (\forall X3.(X3 \in X1) \Rightarrow (k1_funct_1 X2 X3 = X0 X3))) \quad (3)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(X1 = k10_xtuple_0 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9_xtuple_0 X0) \wedge (X2 = k1_funct_1 X0 X3)))) \quad (4)$$

Theorem 1

$$\forall X0.(X0 \neq k1_xboole_0) \Rightarrow (\forall X1.\exists X2.((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \wedge ((k9_xtuple_0 X2 = X0) \wedge (k10_xtuple_0 X2 = k1_tarski X1)))$$