

t45_funct_5
(TMbFH9kLvUEMHHwxvxZGaAsvJC2Rgdot6vs)

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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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_5 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_funct_4 : \iota \Rightarrow \iota$ be given. Let $k1_funct_5 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((r1_tarski (k9_xtuple_0 X2) (k2_zfmisc_1 X0 X1)) \Rightarrow (k2_funct_4 (k2_funct_4 X2) = X2)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((k9_xtuple_0 X2 = k2_zfmisc_1 X0 X1) \Rightarrow (k9_xtuple_0 (k2_funct_4 X2) = k2_zfmisc_1 X1 X0)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow (\forall X3.((v1_relat_1 X3) \wedge (v1_funct_1 X3)) \Rightarrow (((k9_xtuple_0 X2 = k2_zfmisc_1 X0 X1) \wedge ((k9_xtuple_0 X3 = k2_zfmisc_1 X0 X1) \wedge (k1_funct_5 X2 = k1_funct_5 X3))) \Rightarrow (X2 = X3))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski X0 X0 \quad (4)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v1_relat_1 (k2_funct_4 X0)) \wedge (v1_funct_1 (k2_funct_4 X0))) \quad (5)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (k3_funct_5 X0 = k1_funct_5 (k2_funct_4 X0)) \quad (6)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.((v1_relat_1 X2)\wedge(v1_funct_1 X2))\Rightarrow(\forall X3.((v1_relat_1 X3)\wedge(v1_funct_1 X3))\Rightarrow(((k9_xtuple_0 X2 = k2_zfmisc_1 X0 X1)\wedge((k9_xtuple_0 X3 = k2_zfmisc_1 X0 X1)\wedge(k3_funct_5 X2 = k3_funct_5 X3)))\Rightarrow(X2 = X3)))$$