

t65_funct_3 (TMFHXLBMUwiHm- RKZy2tqReaadQqy6XZMN6m)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_funct_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (k4_tarski X0 X1 \in k2_zfmisc_1 X2 X3) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X3)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \wedge ((v1_relat_1 X1) \wedge (v1_funct_1 X1))) \Rightarrow ((v1_relat_1 (k15_funct_3 X0 X1)) \wedge (v1_funct_1 (k15_funct_3 X0 X1))) \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((X2 = k15_funct_3 X0 X1) \Leftrightarrow ((k9_xtuple_0 X2 = k2_zfmisc_1 (k9_xtuple_0 X0) (k9_xtuple_0 X1)) \wedge (\forall X3. \forall X4. ((X3 \in k9_xtuple_0 X0) \wedge (X4 \in k9_xtuple_0 X1)) \Rightarrow (k1_binop_1 X2 X3 X4 = k4_tarski (k1_funct_1 X0 X3) (k1_funct_1 X1 X4)))))))) \quad (3)$$

Theorem 1

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \forall X3. (k4_tarski X2 X3 \in k2_zfmisc_1 (k9_xtuple_0 X0) (k9_xtuple_0 X1)) \Rightarrow (k1_binop_1 (k15_funct_3 X0 X1) X2 X3 = k4_tarski (k1_funct_1 X0 X2) (k1_funct_1 X1 X3))))$$