

t6_yellow17

(TMWYb3hsJ97LnMErG9JDrXazGC6EtJTCrDt)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $k8_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_card_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. k2_funct_7 X0 X1 (k1_funct_1 X0 X1) = X0) \quad (1)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \forall X3. k2_funct_7 (k2_funct_7 X0 X3 X1) X3 X2 = k2_funct_7 X0 X3 X2) \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \forall X3. ((X3 \in k1_funct_1 X0 X2) \wedge (X1 \in k4_card_3 X0)) \Rightarrow (k2_funct_7 X1 X2 X3 \in k4_card_3 X0))) \quad (3)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \forall X3. \forall X4. \forall X5. (m1_subset_1 X5 (k1_zfmisc_1 (k1_funct_1 X0 X3))) \Rightarrow (((X1 \in k4_card_3 X0) \wedge (k2_funct_7 X1 X2 X4 \in k8_relat_1 (k12_card_3 X0 X3) X5)) \Rightarrow ((X2 = X3) \vee (X1 \in k8_relat_1 (k12_card_3 X0 X3) X5)))))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v1_relat_1 (k2_funct_7 X0 X1 X2)) \wedge (v1_funct_1 (k2_funct_7 X0 X1 X2))) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((\\ & \quad v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \forall X3. \forall X4. \\ & \quad \forall X5.(m1_subset_1 X5 (k1_zfmisc_1 (k1_funct_1 X0 X3))) \Rightarrow \\ & ((X4 \in k1_funct_1 X0 X2) \wedge (X1 \in k4_card_3 X0)) \Rightarrow ((X2 = X3) \vee ((X1 \in k8_relat_1 \\ & \quad (k12_card_3 X0 X3) X5) \Leftrightarrow (k2_funct_7 X1 X2 X4 \in k8_relat_1 (k12_card_3 \\ & \quad \quad X0 X3) X5)))))) \end{aligned}$$