

t25_hilbert3 (TM- MeueXjztRX9em1hnNCCQEg1AhgJdfBJrC)

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Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funct_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_funct_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & (((v1_funct_1 X4) \wedge ((v1_funct_2 X4 X0 X2) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X2)))))) \wedge ((v1_funct_1 X5) \wedge ((v1_funct_2 X5 X1 X3) \wedge \\ & (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 X1 X3)))))) \Rightarrow (k16_funct_3 \\ & X0 X1 X2 X3 X4 X5 = k15_funct_3 X4 X5) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((v1_funct_1 X2) \wedge \\ & ((v1_funct_2 X2 X0 X0) \wedge (v3_funct_2 X2 X0 X0) \wedge (m1_subset_1 X2 (\\ & k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))))) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 \\ & X3 X1 X1) \wedge (v3_funct_2 X3 X1 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (\\ & k2_zfmisc_1 X1 X1)))))) \Rightarrow ((v1_funct_1 (k15_funct_3 X2 X3)) \wedge (\\ & (v1_funct_2 (k15_funct_3 X2 X3) (k2_zfmisc_1 X0 X1) (k2_zfmisc_1 \\ & X0 X1)) \wedge (v3_funct_2 (k15_funct_3 X2 X3) (k2_zfmisc_1 X0 X1) (k2_zfmisc_1 \\ & X0 X1)))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & X2 X0 X0) \wedge (v3_funct_2 X2 X0 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (\\ & k2_zfmisc_1 X0 X0)))))) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge ((v1_funct_2 \\ & X3 X1 X1) \wedge (v3_funct_2 X3 X1 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (\\ & k2_zfmisc_1 X1 X1)))))) \Rightarrow (v3_funct_2 (k16_funct_3 X0 X1 X0 X1 X2 \\ & X3) (k2_zfmisc_1 X0 X1) (k2_zfmisc_1 X0 X1))) \end{aligned}$$