

l18_glib_002

(TMQyZzDLiSg1kohuDpKKhctyesPT2D51vqX)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_glib_000 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $k1_glib_002 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_glib_002 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m3_glib_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow ((\exists X1. (m1_subset_1 X1 (k6_glib_000 X0)) \wedge (\forall X2. (m1_subset_1 X2 (k6_glib_000 X0)) \Rightarrow (\exists X3. (m3_glib_001 X3 X0) \wedge (r1_glib_001 X0 X1 X2 X3)))))) \Rightarrow (v1_glib_002 X0) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \wedge (m1_subset_1 X1 (k6_glib_000 X0)) \Rightarrow ((\neg v1_xboole_0 (k1_glib_002 X0 X1)) \wedge (m1_subset_1 (k1_glib_002 X0 X1) (k1_zfmisc_1 (k6_glib_000 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k6_glib_000 X0)) \Rightarrow (\forall X2. ((\neg v1_xboole_0 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k6_glib_000 X0)))))) \Rightarrow ((X2 = k1_glib_002 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow (\exists X4. (m3_glib_001 X4 X0) \wedge (r1_glib_001 X0 X1 X3 X4)))))) \end{aligned} \quad (4)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0))))) \Rightarrow ((\exists X1.(m1_subset_1 X1 (k6_glib_000 X0)) \wedge (k1_glib_002 X0 X1 = k6_glib_000 X0)) \Rightarrow (v1_glib_002 X0))$$