

t25_taxonom1
(TMZV3mjJ7YDZQQNsRQXo29v9WwzQXb1Us8A)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_relat_2 : \iota \Rightarrow o$ be given. Let $v8_relat_2 : \iota \Rightarrow o$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13_lang1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_taxonom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_taxonom1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_metric_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_metric_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_eqrel_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_eqrel_1 : \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k6_partfun1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\ & m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) k1_numbers)))) \Rightarrow \\ & (\forall X2. ((v1_partfun1 X2 X0) \wedge ((v3_relat_2 X2) \wedge ((v8_relat_2 \\ & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))))) \Rightarrow ((\\ & (r2_relset_1 X0 X0 X2 (k13_lang1 X0 (k1_taxonom1 X0 X1 k6_numbers)))) \wedge \\ & ((v1_taxonom1 X1 X0) \wedge ((v2_metric_1 X1 X0) \wedge (v3_metric_1 X1 X0)))) \Rightarrow \\ & (X2 = k4_relat_1 X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. k6_partfun1 X0 = k4_relat_1 X0 \tag{2}$$

Assume the following.

$$\forall X0. k10_eqrel_1 X0 = k8_eqrel_1 X0 (k6_partfun1 X0) \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\ & m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) k1_numbers)))) \Rightarrow \\ & (\forall X2. ((v1_partfun1 X2 X0) \wedge ((v3_relat_2 X2) \wedge ((v8_relat_2 \\ & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))))) \Rightarrow ((\\ & (r2_relset_1 X0 X0 X2 (k13_lang1 X0 (k1_taxonom1 X0 X1 k6_numbers)))) \wedge \\ & ((v1_taxonom1 X1 X0) \wedge ((v2_metric_1 X1 X0) \wedge (v3_metric_1 X1 X0)))) \Rightarrow \\ & (k8_eqrel_1 X0 X2 = k10_eqrel_1 X0)))) \end{aligned}$$