

l25_collsp

(TMPW1oQ21vWUXAEiWRfCn4WAfyjAQj3Ex6K)

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Let $m1_collsp : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $np_3 : \iota$ be given. Let $c7_collsp : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & r1_tarski (ReplSep3 (toset (\lambda X0 : \iota.m1_subset_1 X0 k5_numbers)) \\
 & \quad (\lambda X0 : \iota.toset (\lambda X1 : \iota.m1_subset_1 X1 k5_numbers)) (\\
 & \quad \lambda X0 : \iota.\lambda X1 : \iota.toset (\lambda X2 : \iota.m1_subset_1 X2 k5_numbers)) \\
 & \quad (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.(\neg(X0 \neq X1) \wedge ((X1 \neq X2) \wedge (X2 \neq \\
 & X0)))) \wedge ((X0 \in k8_domain_1 k5_numbers np_1 np_2 np_3) \wedge ((X1 \in k8_domain_1 \\
 & k5_numbers np_1 np_2 np_3) \wedge (X2 \in k8_domain_1 k5_numbers np_1 \\
 & np_2 np_3)))) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.k4_domain_1 \\
 & k5_numbers k5_numbers k5_numbers X0 X1 X2)) (k3_zfmisc_1 (k8_domain_1 \\
 & k5_numbers np_1 np_2 np_3) (k8_domain_1 k5_numbers np_1 np_2 \\
 & np_3) (k8_domain_1 k5_numbers np_1 np_2 np_3))
 \end{aligned} \tag{1}$$

Assume the following.

$$c7_collsp = k8_domain_1 k5_numbers np_1 np_2 np_3 \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (m1_collsp X1 X0) \Leftrightarrow (r1_tarski X1 (k3_zfmisc_1 X0 X0 X0)) \tag{3}$$

Theorem 1

$$\begin{aligned}
 & m1_collsp (ReplSep3 (toset (\lambda X0 : \iota.m1_subset_1 X0 k5_numbers)) \\
 & \quad (\lambda X0 : \iota.toset (\lambda X1 : \iota.m1_subset_1 X1 k5_numbers)) (\\
 & \quad \lambda X0 : \iota.\lambda X1 : \iota.toset (\lambda X2 : \iota.m1_subset_1 X2 k5_numbers)) \\
 & \quad (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.(\neg(X0 \neq X1) \wedge ((X1 \neq X2) \wedge (X2 \neq \\
 & X0)))) \wedge ((X0 \in k8_domain_1 k5_numbers np_1 np_2 np_3) \wedge ((X1 \in k8_domain_1 \\
 & k5_numbers np_1 np_2 np_3) \wedge (X2 \in k8_domain_1 k5_numbers np_1 \\
 & np_2 np_3)))) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.k4_domain_1 \\
 & k5_numbers k5_numbers k5_numbers X0 X1 X2)) c7_collsp
 \end{aligned}$$