

l20_mazurulm
(TMWYWMGsCRDo6agXwB4DnGo84diG2LTgdJ6)

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Let $v2_struct.0 : \iota \Rightarrow o$ be given. Let $v13_algstr.0 : \iota \Rightarrow o$ be given. Let $v2_rlvect.1 : \iota \Rightarrow o$ be given. Let $v3_rlvect.1 : \iota \Rightarrow o$ be given. Let $v4_rlvect.1 : \iota \Rightarrow o$ be given. Let $v5_rlvect.1 : \iota \Rightarrow o$ be given. Let $v6_rlvect.1 : \iota \Rightarrow o$ be given. Let $v7_rlvect.1 : \iota \Rightarrow o$ be given. Let $v8_rlvect.1 : \iota \Rightarrow o$ be given. Let $v3_normsp.0 : \iota \Rightarrow o$ be given. Let $v4_normsp.0 : \iota \Rightarrow o$ be given. Let $v2_normsp.1 : \iota \Rightarrow o$ be given. Let $l1_normsp.1 : \iota \Rightarrow o$ be given. Let $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v1_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ 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 $v3_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tops.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_struct.0 : \iota \Rightarrow \iota$ be given. Let $l1_struct.0 : \iota \Rightarrow o$ be given. Let $v2_funct.1 : \iota \Rightarrow o$ be given. Let $v2_funct.2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l2_struct.0 : \iota \Rightarrow o$ be given. Let $l2_normsp.0 : \iota \Rightarrow o$ be given. Let $l1_normsp.0 : \iota \Rightarrow o$ be given. Let $l1_rlvect.1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct.0 X0) \wedge (l1_struct.0 X0)) \Rightarrow (\forall X1. \\
& ((\neg v2_struct.0 X1) \wedge (l1_struct.0 X1)) \Rightarrow (\forall X2.((v1_funct.1 \\
& X2) \wedge ((v1_funct.2 X2 (u1_struct.0 X0) (u1_struct.0 X1)) \wedge (m1_subset.1 \\
& X2 (k1_zfmisc.1 (k2_zfmisc.1 (u1_struct.0 X0) (u1_struct.0 X1)))))) \Rightarrow \\
& (((v2_funct.1 X2) \wedge (v2_funct.2 X2 (u1_struct.0 X1))) \Rightarrow ((r2_funct.2 \\
& (u1_struct.0 X1) (u1_struct.0 X1) (k1_partfun1 (u1_struct.0 X1) \\
& (u1_struct.0 X0) (u1_struct.0 X0) (u1_struct.0 X1) (k2_tops.2 \\
& (u1_struct.0 X0) (u1_struct.0 X1) X2) X2) (k3_struct.0 X1)) \wedge ((\\
& r2_funct.2 (u1_struct.0 X0) (u1_struct.0 X0) (k1_partfun1 (u1_struct.0 \\
& X0) (u1_struct.0 X1) (u1_struct.0 X1) (u1_struct.0 X0) X2 (k2_tops.2 \\
& (u1_struct.0 X0) (u1_struct.0 X1) X2)) (k3_struct.0 X0)) \wedge ((v2_funct.1 \\
& (k2_tops.2 (u1_struct.0 X0) (u1_struct.0 X1) X2)) \wedge (v2_funct.2 \\
& (k2_tops.2 (u1_struct.0 X0) (u1_struct.0 X1) X2) (u1_struct.0 \\
& X0)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(l2_struct.0 X0) \Rightarrow (l1_struct.0 X0) \tag{2}$$

Assume the following.

$$\forall X0.(l2_normsp_0 X0) \Rightarrow ((l1_normsp_0 X0) \wedge (l2_struct_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(l1_normsp_1 X0) \Rightarrow ((l1_rlvect_1 X0) \wedge (l2_normsp_0 X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))) \Rightarrow (((v1_funct_1 X2) \wedge (v3_funct_2 X2 X0 X1)) \Rightarrow \\ & ((v1_funct_1 X2) \wedge ((v2_funct_1 X2) \wedge (v2_funct_2 X2 X1)))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge ((v3_normsp_0 \\ & X0) \wedge ((v4_normsp_0 X0) \wedge ((v2_normsp_1 X0) \wedge (l1_normsp_1 X0)))))))))) \Rightarrow \\ & (\forall X1.((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 \\ & X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v5_rlvect_1 X1) \wedge \\ & ((v6_rlvect_1 X1) \wedge ((v7_rlvect_1 X1) \wedge ((v8_rlvect_1 X1) \wedge ((v3_normsp_0 \\ & X1) \wedge ((v4_normsp_0 X1) \wedge ((v2_normsp_1 X1) \wedge (l1_normsp_1 X1)))))))))) \Rightarrow \\ & (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) \\ & (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((v3_funct_2 X2 (u1_struct_0 \\ & X0) (u1_struct_0 X1)) \Rightarrow (r2_funct_2 (u1_struct_0 X0) (u1_struct_0 \\ & X0) (k1_partfun1 (u1_struct_0 X0) (u1_struct_0 X1) (u1_struct_0 \\ & X1) (u1_struct_0 X0) X2 (k2_tops_2 (u1_struct_0 X0) (u1_struct_0 \\ & X1) X2)) (k3_struct_0 X0)))))) \end{aligned}$$