

t56_vfunct_1

(TMQZcSSctNBv8eedJ7Ea8w5QKkfbiyiNquF)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_vfunct_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_funct_1 : \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_vfunct_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge ((v13_algstr_0 X2) \wedge ((v2_rlvect_1 X2) \wedge ((v3_rlvect_1 X2) \wedge \\
 & ((v4_rlvect_1 X2) \wedge ((v5_rlvect_1 X2) \wedge ((v6_rlvect_1 X2) \wedge ((v7_rlvect_1 X2) \wedge ((v8_rlvect_1 X2) \wedge ((v3_normsp_0 X2) \wedge ((v4_normsp_0 X2) \wedge \\
 & ((v2_normsp_1 X2) \wedge (l1_normsp_1 X2))))))))))))) \Rightarrow (\forall X3. \\
 & ((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X1 (u1_struct_0 X2)))))) \Rightarrow ((v3_funct_1 (k2_partfun1 X1 (u1_struct_0 X2) X3 X0)) \Rightarrow (r1_vfunct_1 X1 X2 X3 X0)))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. (\neg v1_xboole_0 X2) \Rightarrow (\forall X3. \\
 & ((\neg v2_struct_0 X3) \wedge ((v13_algstr_0 X3) \wedge ((v2_rlvect_1 X3) \wedge ((v3_rlvect_1 X3) \wedge ((v4_rlvect_1 X3) \wedge ((v5_rlvect_1 X3) \wedge ((v6_rlvect_1 X3) \wedge ((v7_rlvect_1 X3) \wedge ((v8_rlvect_1 X3) \wedge ((v3_normsp_0 X3) \wedge \\
 & ((v4_normsp_0 X3) \wedge ((v2_normsp_1 X3) \wedge (l1_normsp_1 X3))))))))))))) \Rightarrow \\
 & (\forall X4. ((v1_funct_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X2 (u1_struct_0 X3)))))) \Rightarrow (\forall X5. ((v1_funct_1 X5) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 X2 (u1_struct_0 X3)))))) \Rightarrow (((r1_vfunct_1 X2 X3 X4 X0) \wedge (r1_vfunct_1 X2 X3 X5 X1)) \Rightarrow (r1_vfunct_1 X2 X3 (k6_vfunct_1 X2 X3 X4 X5) (k3_xboole_0 X0 X1))))))
 \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (\neg v1_xboole_0 X2) \Rightarrow (\forall X3. \\ & ((\neg v2_struct_0 X3) \wedge ((v13_algstr_0 X3) \wedge ((v2_rlvect_1 X3) \wedge ((\\ & v3_rlvect_1 X3) \wedge ((v4_rlvect_1 X3) \wedge ((v5_rlvect_1 X3) \wedge ((v6_rlvect_1 \\ & X3) \wedge ((v7_rlvect_1 X3) \wedge ((v8_rlvect_1 X3) \wedge ((v3_normsp_0 X3) \wedge \\ & ((v4_normsp_0 X3) \wedge ((v2_normsp_1 X3) \wedge (l1_normsp_1 X3)))))))))) \Rightarrow \\ & (\forall X4. ((v1_funct_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X2 (u1_struct_0 X3)))))) \Rightarrow (\forall X5. ((v1_funct_1 X5) \wedge (m1_subset_1 \\ & X5 (k1_zfmisc_1 (k2_zfmisc_1 X2 (u1_struct_0 X3)))))) \Rightarrow (((r1_vfunct_1 \\ & X2 X3 X4 X0) \wedge (v3_funct_1 (k2_partfun1 X2 (u1_struct_0 X3) X5 X1))) \Rightarrow \\ & (r1_vfunct_1 X2 X3 (k6_vfunct_1 X2 X3 X4 X5) (k3_xboole_0 X0 X1)))))) \end{aligned}$$