

t7_convex4 (TMJwTGcUaf- fJUNeELQG3ZHTApTpzWJuBum7)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_clvect_1 : \iota \Rightarrow o$ 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 $k2_numbers : \iota$ 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 $k3_convex4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_clvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. \forall X2. (m2_finseq_1 X2 X1) \Rightarrow ((X0 \in k4_finseq_1 X2) \Rightarrow (k1_funct_1 X2 X0 \in X1))) \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$\forall X0. v1_xboole_0 (k6_finseq_1 X0) \quad (4)$$

Assume the following.

$$\forall X0. m2_finseq_1 (k6_finseq_1 X0) X0 \quad (5)$$

Assume the following.

$$\forall X0. k6_finseq_1 X0 = k1_xboole_0 \quad (6)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_clvect_1 X0)) \Rightarrow (\forall X1. \\
& (m2_finseq_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge \\
& ((v1_funct_2 X2 (u1_struct_0 X0) k2_numbers) \wedge (m1_subset_1 X2 \\
& (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) k2_numbers)))))) \Rightarrow \\
& (\forall X3.(m2_finseq_1 X3 (u1_struct_0 X0)) \Rightarrow ((X3 = k3_convex4 \\
& X0 X1 X2) \Leftrightarrow ((k3_finseq_1 X3 = k3_finseq_1 X1) \wedge (\forall X4.(v7_ordinal1 \\
& X4) \Rightarrow ((X4 \in k4_finseq_1 X3) \Rightarrow (k1_funct_1 X3 X4 = k1_clvect_1 X0 (k7_partfun1 \\
& (u1_struct_0 X0) X1 X4) (k3_funct_2 (u1_struct_0 X0) k2_numbers \\
& X2 (k7_partfun1 (u1_struct_0 X0) X1 X4))))))))))
\end{aligned} \tag{7}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_clvect_1 X0)) \Rightarrow (\forall X1. \\
& ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (u1_struct_0 X0) k2_numbers) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) k2_numbers)))))) \Rightarrow \\
& (k3_convex4 X0 (k6_finseq_1 (u1_struct_0 X0) X1 = k6_finseq_1 \\
& (u1_struct_0 X0)))
\end{aligned}$$