

t63_convex4 (TMNUQm- TyEZNb5ofPGVe5Tz8GgiEMGHnZCK2)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_clvect_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k19_convex4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k5_complex1 : \iota$ be given. Let $k1_clvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$k6_numbers = k1_xboole_0 \tag{1}$$

Assume the following.

$$k5_complex1 = k1_xboole_0 \tag{2}$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_clvect_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (v1_xcmplx_0 X2) \Rightarrow (k19_convex4 X0 X1 X2 = ReplSep (toset (\lambda X3 : \\ & \iota.m1_subset_1 X3 (u1_struct_0 X0))) (\lambda X3 : \iota.X3 \in X1) (\lambda X3 : \\ & \iota.k1_clvect_1 X0 X3 X2)))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Leftrightarrow (\forall X1.\neg X1 \in X0) \tag{5}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_clvect_1 X0)) \Rightarrow (\forall X1. \\ & ((v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow (\forall X2.(v1_xcmplx_0 X2) \Rightarrow (k19_convex4 X0 X1 X2 = k1_xboole_0))) \end{aligned}$$