

t30_convex1

(TMWUFGMW7E7WWGNRRrFy6CRUN7BEHbBWais)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_convex1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarSKI : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_convex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k6_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_convex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (r1_tarSKI (k1_setfam_1 X1) X0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \Rightarrow (k6_setfam_1 X0 X1 = k1_setfam_1 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_rlvect_1 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 (k2_convex1 X0 X1) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_rlvect_1 X0)) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (k3_convex1 X0 X1 = k6_setfam_1 (u1_struct_0 X0) (k2_convex1 X0 X1))) \quad (4)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_rlvect_1 X0)) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((X2 = k2_convex1 X0 X1) \Leftrightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((X3 \in X2) \Leftrightarrow ((v1_convex1 X3 X0) \wedge (r1_tarSKI X1 X3)))))))) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_rlvect_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & ((v1_convex1 X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow ((r1_tarski X1 X2) \Rightarrow (r1_tarski (k3_convex1 X0 X1) X2)))) \end{aligned}$$