

# t6\_convex3 (TMKLBzVWQoEtD- JtML6xXZWzuyMzZnn78d9d)

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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  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_convex3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1\_xboole\_0 X1) \quad (1)$$

Assume the following.

$$v1\_xboole\_0 k1\_xboole\_0 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_rlvect\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v1\_convex3 \\ & X1 X0) \Leftrightarrow (\forall X2. (m1\_subset\_1 X2 k1\_numbers) \Rightarrow (\forall X3. ( \\ & m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow ((X3 \in X1) \Rightarrow ((r1\_xxreal\_0 X2 k6\_numbers) \vee \\ & (k1\_rlvect\_1 X0 X3 X2 \in X1))))))) \end{aligned} \quad (3)$$

## Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_rlvect\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((X1 = k1\_xboole\_0) \Rightarrow \\ & (v1\_convex3 X1 X0))) \end{aligned}$$