

# t1\_incproj

(TMdNzY86pDykNz5kkPjvnJN38MZKHjH2kSB)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_collsp : \iota \Rightarrow o$  be given. Let  $v3\_collsp : \iota \Rightarrow o$  be given. Let  $v4\_collsp : \iota \Rightarrow o$  be given. Let  $l1\_collsp : \iota \Rightarrow o$  be given. Let  $m1\_incproj : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_incproj : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

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

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_collsp X0) \wedge ((v3\_collsp X0) \wedge ((v4\_collsp X0) \wedge (l1\_collsp X0)))))) \Rightarrow (\exists X1. m1\_incproj X1 X0) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_collsp X0) \wedge ((v3\_collsp X0) \wedge ((v4\_collsp X0) \wedge (l1\_collsp X0)))))) \Rightarrow (\forall X1. (m1\_incproj X1 X0) \Rightarrow (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \Rightarrow ((m1\_subset\_1 X1 X0) \Leftrightarrow (X1 \in X0))) \wedge ((v1\_xboole\_0 X0) \Rightarrow ((m1\_subset\_1 X1 X0) \Leftrightarrow (v1\_xboole\_0 X1))) \quad (4)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_collsp X0) \wedge ((v3\_collsp X0) \wedge ((v4\_collsp X0) \wedge (l1\_collsp X0)))))) \Rightarrow (k1\_incproj X0 = \text{ReplSep } (\text{toset } (\lambda X1 : \iota. m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) (\lambda X1 : \iota. m1\_incproj X1 X0) (\lambda X1 : \iota. X1))) \quad (5)$$

### Theorem 1

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_collsp X0) \wedge ((v3\_collsp X0) \wedge ((v4\_collsp X0) \wedge (l1\_collsp X0)))))) \Rightarrow (\forall X1. (m1\_incproj X1 X0) \Leftrightarrow (m1\_subset\_1 X1 (k1\_incproj X0)))$$