

## t26\_relset\_2

(TMR9Lsg7MdowLArAJSXAasAxK4ZEfvJb57Z)

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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  $k7\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_setfam\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_relset\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_eqrel\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k6\_relset\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 \\ & X1))) \Rightarrow ((k7\_relset\_1 (k9\_setfam\_1 X0) (k9\_setfam\_1 X1) (k4\_relset\_2 \\ & X1 X0 X3) (k10\_eqrel\_1 X2) = k1\_xboole\_0) \Leftrightarrow (X2 = k1\_xboole\_0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. k2\_xboole\_0 X0 k1\_xboole\_0 = X0 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & X0)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 X0))) \Rightarrow (k4\_subset\_1 X0 X1 X2 = \\ & k2\_xboole\_0 X1 X2) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & X0)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 X0))) \Rightarrow (k4\_subset\_1 X0 X1 X2 = \\ & k4\_subset\_1 X0 X2 X1) \end{aligned} \quad (4)$$

### Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 X0)) \Rightarrow (\forall X4. \\ & (m1\_subset\_1 X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow ((k7\_relset\_1 \\ & (k9\_setfam\_1 X0) (k9\_setfam\_1 X1) (k4\_relset\_2 X1 X0 X4) (k10\_eqrel\_1 \\ & X2) = k1\_xboole\_0) \Rightarrow (k6\_relset\_2 X0 X1 (k4\_subset\_1 X0 X2 X3) X4 = \\ & k6\_relset\_2 X0 X1 X3 X4)))) \end{aligned}$$