

t56\_relset\_2 (TMUd-  
fKP5EmqSW4aADwdPEwdse8dhy74uPDd)

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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  $k3\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_relset\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarSKI : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (m1\_subset\_1 X3 ( \\ & \quad k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (\forall X4. (m1\_subset\_1 X4 \\ & \quad (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 X2))) \Rightarrow ((k10\_xtuple\_0 (k7\_relset\_2 \\ & \quad X0 X1 X2 X3 X4) = k7\_relset\_1 X1 X2 X4 (k10\_xtuple\_0 X3)) \wedge (r1\_tarSKI \\ & \quad (k10\_xtuple\_0 (k7\_relset\_2 X0 X1 X2 X3 X4)) (k10\_xtuple\_0 X4)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & \quad (k2\_zfmisc\_1 X1 X0))) \Rightarrow ((k9\_xtuple\_0 X2 = k7\_relset\_1 X0 X1 (k3\_relset\_1 \\ & \quad X1 X0 X2) X0) \wedge (k10\_xtuple\_0 X2 = k7\_relset\_1 X1 X0 X2 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & \quad (k2\_zfmisc\_1 X0 X1))) \Rightarrow (\forall X3. k7\_relset\_1 X1 X0 (k3\_relset\_1 \\ & \quad X0 X1 X2) X3 = k7\_relset\_1 X1 X0 (k3\_relset\_1 X0 X1 X2) (k3\_xboole\_0 \\ & \quad X3 (k10\_xtuple\_0 X2))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarSKI X0 X1) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarSKI X0 X1) \Rightarrow (k3\_xboole\_0 X0 X1 = X0) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\wedge(m1\_subset\_1 X4 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X1 X2))))\Rightarrow(m1\_subset\_1 (k7\_relset\_2 X0 X1 X2 X3 X4) \\ & (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X2))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1 X2 ( \\ & k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(m1\_subset\_1 (k7\_relset\_1 \\ & X0 X1 X2 X3) (k1\_zfmisc\_1 X1)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X0 X1)))\Rightarrow(m1\_subset\_1 (k3\_relset\_1 X0 X1 X2) (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X1 X0))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0 X0 X1 = k3\_xboole\_0 X1 X0 \quad (9)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X1 X0)))\Rightarrow(k7\_relset\_1 X0 X1 (k3\_relset\_1 X1 X0 X2) \\ & X0 = k7\_relset\_1 X1 X1 (k7\_relset\_2 X1 X0 X1 X2 (k3\_relset\_1 X1 X0 X2)) \\ & X1) \end{aligned}$$