

t26\_rpr\_1 (TMFnnPofY-  
wAQNo9ZfEAueweYH9FK5bkRoRw)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_rpr\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_subset\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.k3\_xboole\_0 X0 (k2\_xboole\_0 X1 X2) = k2\_xboole\_0 (k3\_xboole\_0 X0 X1) (k3\_xboole\_0 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0 X0 (k2\_xboole\_0 X0 X1) = X0 \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1\_xboole\_0 X0) \wedge (v1\_finset\_1 X0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 \\ (k1\_zfmisc\_1 X0)) \Rightarrow ((r1\_xboole\_0 X1 X2) \Rightarrow (k1\_rpr\_1 X0 (k4\_subset\_1 \\ X0 X1 X2) = k7\_real\_1 (k1\_rpr\_1 X0 X1) (k1\_rpr\_1 X0 X2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)) \Rightarrow (r1\_xboole\_0 (k9\_subset\_1 X0 X1 X2) (k9\_subset\_1 X0 X1 (k3\_subset\_1 X0 X2)))))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k4\_subset\_1 X0 X1 (k3\_subset\_1 X0 X1) = k2\_subset\_1 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)) \Rightarrow (k9\_subset\_1 X0 X1 X2 = k3\_xboole\_0 X1 X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)))\Rightarrow(k4\_subset\_1 X0 X1 X2 = k2\_xboole\_0 X1 X2) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0))\Rightarrow(m1\_subset\_1 (k9\_subset\_1 X0 X1 X2) (k1\_zfmisc\_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(m1\_subset\_1 (k3\_subset\_1 X0 X1) (k1\_zfmisc\_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.k2\_subset\_1 X0 = X0 \quad (10)$$

**Theorem 1**

$$\forall X0.((\neg v1\_xboole\_0 X0)\wedge(v1\_finset\_1 X0))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0))\Rightarrow(k1\_rpr\_1 X0 X1 = k7\_real\_1 (k1\_rpr\_1 X0 (k9\_subset\_1 X0 X1 X2)) (k1\_rpr\_1 X0 (k9\_subset\_1 X0 X1 (k3\_subset\_1 X0 X2))))))$$