

t31\_eqrel\_1  
(TMHZFq66n1XYoaqqkpvDCfVphXD3ujudjds)

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Let  $v3\_relat\_2 : \iota \Rightarrow o$  be given. Let  $v8\_relat\_2 : \iota \Rightarrow o$  be given. Let  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k7\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k6\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

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

Assume the following.

$$\forall X0. (v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0. \exists X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \wedge (v1\_xboole\_0 X1) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v3\_relat\_2 X1) \wedge ((v8\_relat\_2 X1) \wedge ((v1\_partfun1 \\ & X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))))) \Rightarrow \\ & (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \Rightarrow \\ & ((X2 = k7\_eqrel\_1 X0 X1) \Leftrightarrow (\forall X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\ & X0)) \Rightarrow ((X3 \in X2) \Leftrightarrow (\exists X4. (X4 \in X0) \wedge (X3 = k6\_eqrel\_1 X0 X0 X1 X4)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (v1\_xboole\_0 X0) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (v1\_partfun1 X2 X0)) \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. ((v3\_relat\_2 X1) \wedge ((v8\_relat\_2 X1) \wedge ((v1\_partfun1 \\ & X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))))) \Rightarrow \\ & ((X0 = k1\_xboole\_0) \Rightarrow (k7\_eqrel\_1 X0 X1 = k1\_xboole\_0)) \end{aligned}$$