

# t17\_partfun2 (TMFajCNFa- JtE2omkwpA6GERbLqNFvaUvZ7D)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2. (\neg v1\_xboole\_0 \\ & X2) \Rightarrow (\forall X3. (m1\_subset\_1 X3 X1) \Rightarrow (\forall X4. ((v1\_funct\_1 \\ & X4) \wedge (m1\_subset\_1 X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 X2)))) \Rightarrow ((X3 \in \\ & k8\_subset\_1 X1 (k1\_relset\_1 X1 X4) X0) \Rightarrow (k7\_partfun1 X2 (k2\_partfun1 \\ & X1 X2 X4 X0) X3 = k7\_partfun1 X2 X4 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k8\_subset\_1 X0 X1 X2 = k3\_xboole\_0 X1 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 X0)) \Rightarrow (m1\_subset\_1 (k1\_relset\_1 X0 X1) (k1\_zfmisc\_1 X0)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k3\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow ((v4\_relat\_1 X2 X0) \wedge (v5\_relat\_1 X2 X1)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (v1\_relat\_1 X2) \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2. (\neg v1\_xboole\_0 \\ & X2) \Rightarrow (\forall X3. (m1\_subset\_1 X3 X1) \Rightarrow (\forall X4. ((v1\_funct\_1 \\ & X4) \wedge (m1\_subset\_1 X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X1 X2)))) \Rightarrow (((X3 \in \\ & k1\_relset\_1 X1 X4) \wedge (X3 \in X0)) \Rightarrow (k7\_partfun1 X2 (k2\_partfun1 X1 X2 \\ & X4 X0) X3 = k7\_partfun1 X2 X4 X3)))))) \end{aligned}$$