

t37\_funct\_3  
(TMTUzF4ttBCyAapmb87qPQiKj3r5dPkSSWx)

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Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_funct\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Assume the following.

$$\forall X0. \forall X1. k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (v1\_relat\_1 (k4\_funct\_3 X0 X1)) \wedge (v1\_funct\_1 (k4\_funct\_3 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k4\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1\_relat\_1 X2) \wedge (v1\_funct\_1 \\ & X2)) \Rightarrow ((X2 = k4\_funct\_3 X0 X1) \Leftrightarrow ((k9\_xtuple\_0 X2 = X1) \wedge (\forall X3. \\ & (X3 \in X1) \Rightarrow (((X3 \in X0) \Rightarrow (k1\_funct\_1 X2 X3 = np\_1)) \wedge ((\neg X3 \in X0) \Rightarrow (k1\_funct\_1 \\ & X2 X3 = k1\_xboole\_0)))))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\forall X0. \forall X1. \forall X2. (X0 \in k6\_subset\_1 X1 X2) \Rightarrow (k1\_funct\_1 (k4\_funct\_3 X2 X1) X0 = k1\_xboole\_0)$$