

## t92\_funct\_1

(TMWo6i6na35oMEedb2VRgcJt99SRcTtNgwN)

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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  $k7\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  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  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg(X0 \in X1) \wedge ((m1\_subset\_1 X1 (k1\_zfmisc\_1 X2)) \wedge (v1\_xboole\_0 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow ((X1 = k4\_relat\_1 X0) \Leftrightarrow ((k9\_xtuple\_0 X1 = X0) \wedge (\forall X2. (X2 \in X0) \Rightarrow (k1\_funct\_1 X1 X2 = X2)))) \quad (4)$$

Assume the following.

$$\forall X0. k9\_xtuple\_0 (k4\_relat\_1 X0) = X0 \quad (5)$$

Assume the following.

$$\forall X0. (v1\_relat\_1 (k4\_relat\_1 X0)) \wedge (v1\_funct\_1 (k4\_relat\_1 X0)) \quad (6)$$

Assume the following.

$$\forall X0. v1\_relat\_1 (k4\_relat\_1 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ & (X2 = k7\_relat\_1 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow (\exists X4. (X4 \in k9\_xtuple\_0 \\ & X0) \wedge ((X4 \in X1) \wedge (X3 = k1\_funct\_1 X0 X4)))))) \end{aligned} \tag{8}$$

**Theorem 1**

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (k7\_relat\_1 (k4\_relat\_1 X0) X1 = X1)$$