

t16\_funct\_3 (TMUs-  
LAuo44FR4zpeUJSCxVHrATWpzhaM4YV)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $k8\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_3 : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k7\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \Rightarrow (((r1\_tarski X0 (k9\_xtuple\_0 X2)) \wedge (r1\_tarski (k7\_relat\_1 X2 X0) X1)) \Rightarrow (r1\_tarski X0 (k8\_relat\_1 X2 X1))) \quad (1)$$

Assume the following.

$$\forall X0.k3\_tarski (k1\_zfmisc\_1 X0) = X0 \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow (k7\_relat\_1 X1 (k8\_relat\_1 X1 X0) = k3\_xboole\_0 X0 (k7\_relat\_1 X1 (k9\_xtuple\_0 X1))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski X0 X1) \Rightarrow (r1\_tarski (k3\_tarski X0) (k3\_tarski X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski (k3\_xboole\_0 X0 X1) X0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow ((r1\_tarski X0 (k1\_zfmisc\_1 (k9\_xtuple\_0 X1))) \Rightarrow (k7\_relat\_1 X1 (k3\_tarski X0) = k3\_tarski (k7\_relat\_1 (k1\_funct\_3 X1) X0))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X1)\wedge(v1\_funct\_1 X1))\Rightarrow(r1\_tarski (k8\_relat\_1 (k1\_funct\_3 X1) X0) (k1\_zfmisc\_1 (k9\_xtuple\_0 X1))) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_relat\_1 X0)\Rightarrow(k7\_relat\_1 X0 (k9\_xtuple\_0 X0) = k10\_xtuple\_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge(v1\_funct\_1 X0))\Rightarrow((v1\_relat\_1 (k1\_funct\_3 X0))\wedge(v1\_funct\_1 (k1\_funct\_3 X0))) \quad (9)$$

**Theorem 1**

$$\forall X0.\forall X1.((v1\_relat\_1 X1)\wedge(v1\_funct\_1 X1))\Rightarrow(r1\_tarski (k3\_tarski (k8\_relat\_1 (k1\_funct\_3 X1) X0)) (k8\_relat\_1 X1 (k3\_tarski X0)))$$