

# t42\_funct\_5 (TMGvLshGGTU- LoS9YrEUJ6VPaeTqFGNeap4G)

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Let  $k1\_funct\_5 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k3\_funct\_5 : \iota \Rightarrow \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v5\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. k4\_xboole\_0 X0 k1\_xboole\_0 = X0 \quad (1)$$

Assume the following.

$$(k9\_xtuple\_0 k1\_xboole\_0 = k1\_xboole\_0) \wedge (k10\_xtuple\_0 k1\_xboole\_0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0. (v1\_relat\_1 k1\_xboole\_0) \wedge ((v5\_relat\_1 k1\_xboole\_0 X0) \wedge ((v1\_funct\_1 k1\_xboole\_0) \wedge (v5\_ordinal1 k1\_xboole\_0))) \quad (3)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow ((\forall X1. \forall X2. \neg k4\_tarski X1 X2 \in k9\_xtuple\_0 X0) \Rightarrow ((k1\_funct\_5 X0 = k1\_xboole\_0) \wedge (k3\_funct\_5 X0 = k1\_xboole\_0))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k4\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. k4\_tarski X0 X1 = k2\_tarski (k2\_tarski X0 X1) (k1\_tarski X0) \quad (6)$$

Assume the following.

$$k1\_xboole\_0 = the (\lambda X0 : \iota. v1\_xboole\_0 X0) \quad (7)$$

**Theorem 1**

$$(k1\_funct\_5\ k1\_xboole\_0 = k1\_xboole\_0) \wedge (k3\_funct\_5\ k1\_xboole\_0 = k1\_xboole\_0)$$