

t54\_funct\_5  
(TMQ1bR2RCK3wRH7TupQwaz8pshXNjFHpifD)

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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  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_funct\_5 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k1\_funct\_5 : \iota \Rightarrow \iota$  be given. Let  $k3\_funct\_5 : \iota \Rightarrow \iota$  be given. Let  $k4\_funct\_5 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1\_relat\_1 X2) \wedge (v1\_funct\_1 \\ & X2)) \Rightarrow ((r1\_tarski (k10\_xtuple\_0 X2) (k4\_partfun1 X0 X1)) \Rightarrow ((k1\_xboole\_0 \in \\ & k10\_xtuple\_0 X2) \vee ((k1\_funct\_5 (k2\_funct\_5 X2) = X2) \wedge (k3\_funct\_5 \\ & (k4\_funct\_5 X2) = X2)))) \end{aligned} \tag{1}$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1\_relat\_1 X2) \wedge (v1\_funct\_1 \\ & X2)) \Rightarrow (\forall X3. ((v1\_relat\_1 X3) \wedge (v1\_funct\_1 X3)) \Rightarrow (((r1\_tarski \\ & (k10\_xtuple\_0 X2) (k4\_partfun1 X0 X1)) \wedge ((r1\_tarski (k10\_xtuple\_0 \\ & X3) (k4\_partfun1 X0 X1)) \wedge (k2\_funct\_5 X2 = k2\_funct\_5 X3))) \Rightarrow ((k1\_xboole\_0 \in \\ & k10\_xtuple\_0 X2) \vee ((k1\_xboole\_0 \in k10\_xtuple\_0 X3) \vee (X2 = X3)))) \end{aligned}$$