

# t48\_rewrite3 (TMc- CzyG1EXmJ1CPPKvSQXit9Cf2Zxe81LuE)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k8\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_rewrite3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_rewrite1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\
& \quad (k8\_afinsq\_1 X0))) \Rightarrow (\forall X2. ((\neg v2\_struct\_0 X2) \wedge (l1\_rewrite3 \\
& \quad X2 X1)) \Rightarrow (\forall X3. (m1\_rewrite1 X3 (k1\_rewrite3 X0 X1 X2)) \Rightarrow (\forall X4. \\
& \quad (v7\_ordinal1 X4) \Rightarrow (\neg (X4 \in k4\_finseq\_1 X3) \wedge ((k2\_xcmplx\_0 X4 np\_1 \in \\
& \quad k4\_finseq\_1 X3) \wedge (\forall X5. (m1\_subset\_1 X5 (u1\_struct\_0 X2)) \Rightarrow \\
& \quad (\forall X6. (m1\_subset\_1 X6 (k8\_afinsq\_1 X0)) \Rightarrow (\forall X7. (m1\_subset\_1 \\
& \quad X7 (u1\_struct\_0 X2)) \Rightarrow (\forall X8. (m1\_subset\_1 X8 (k8\_afinsq\_1 \\
& \quad X0)) \Rightarrow (\neg (k1\_funct\_1 X3 X4 = k4\_tarski X5 X6) \wedge (k1\_funct\_1 X3 (k2\_xcmplx\_0 \\
& \quad X4 np\_1) = k4\_tarski X7 X8)))))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. k2\_xtuple\_0 (k4\_tarski X0 X1) = X1 \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. k1\_xtuple\_0 (k4\_tarski X0 X1) = X0 \tag{3}$$

**Theorem 1**

$$\begin{aligned} \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (k8\_afinsq\_1 X0))) \Rightarrow (\forall X2.((\neg v2\_struct\_0 X2) \wedge (l1\_rewrite3 \\ X2 X1)) \Rightarrow (\forall X3.(m1\_rewrite1 X3 (k1\_rewrite3 X0 X1 X2)) \Rightarrow (\forall X4. \\ (v7\_ordinal1 X4) \Rightarrow (((X4 \in k4\_finseq\_1 X3) \wedge (k2\_xcmplx\_0 X4 np\_1 \in \\ k4\_finseq\_1 X3)) \Rightarrow ((k1\_funct\_1 X3 X4 = k4\_tarski (k1\_xtuple\_0 ( \\ k1\_funct\_1 X3 X4)) (k2\_xtuple\_0 (k1\_funct\_1 X3 X4))) \wedge (k1\_funct\_1 \\ X3 (k2\_xcmplx\_0 X4 np\_1) = k4\_tarski (k1\_xtuple\_0 (k1\_funct\_1 \\ X3 (k2\_xcmplx\_0 X4 np\_1))) (k2\_xtuple\_0 (k1\_funct\_1 X3 (k2\_xcmplx\_0 \\ X4 np\_1)))))))))) \end{aligned}$$