

# t90\_rewrite3 (TMWrubfbReKHsWhsLai- WDH5wTbpSHbru56t)

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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  $k8\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_rewrite3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r3\_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_flang\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (\neg v1\_xboole\_0 X2) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (k8\_afinsq\_1 X2)) \Rightarrow (\forall X4. (m1\_subset\_1 X4 \\ & (k8\_afinsq\_1 X2)) \Rightarrow (\forall X5. (m1\_subset\_1 X5 (k1\_zfmisc\_1 ( \\ & k8\_afinsq\_1 X2))) \Rightarrow (\forall X6. ((\neg v2\_struct\_0 X6) \wedge (l1\_rewrite3 \\ & X6 X5)) \Rightarrow ((r1\_rewrite1 (k1\_rewrite3 X2 X5 X6) (k4\_tarski X0 X3) ( \\ & k4\_tarski X1 (k1\_flang\_1 X2 X4 X3))) \Rightarrow (X4 = k2\_flang\_1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k8\_afinsq\_1 X0))) \Rightarrow (\forall X2. ((\neg v2\_struct\_0 X2) \wedge (l1\_rewrite3 \\ & X2 X1)) \Rightarrow (\forall X3. \forall X4. \forall X5. \forall X6. (r3\_rewrite3 \\ & X0 X1 X2 X3 X4 X5 X6) \Leftrightarrow (r1\_rewrite1 (k1\_rewrite3 X0 X1 X2) (k4\_tarski \\ & X3 X4) (k4\_tarski X5 X6)))))) \end{aligned} \quad (2)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (\neg v1\_xboole\_0 X2) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (k8\_afinsq\_1 X2)) \Rightarrow (\forall X4. (m1\_subset\_1 X4 \\ & (k8\_afinsq\_1 X2)) \Rightarrow (\forall X5. (m1\_subset\_1 X5 (k1\_zfmisc\_1 ( \\ & k8\_afinsq\_1 X2))) \Rightarrow (\forall X6. ((\neg v2\_struct\_0 X6) \wedge (l1\_rewrite3 \\ & X6 X5)) \Rightarrow ((r3\_rewrite3 X2 X5 X6 X0 X3 X1 (k1\_flang\_1 X2 X4 X3)) \Rightarrow (X4 = \\ & k2\_flang\_1 X2)))))) \end{aligned}$$