

# t102\_rewrite3 (TM- SPF2zAWqDQcaGS9QNi8avHQDNWjwnmwPs)

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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  $v2\_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r4\_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r3\_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_flang\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & (\neg v1\_xboole\_0 X5) \Rightarrow (\forall X6. (m1\_subset\_1 X6 (k1\_zfmisc\_1 ( \\ & k8\_afinsq\_1 X5))) \Rightarrow (\forall X7. ((\neg v2\_struct\_0 X7) \wedge (l1\_rewrite3 \\ & X7 X6)) \Rightarrow (((v2\_rewrite3 X7 X5 X6) \wedge ((r3\_rewrite3 X5 X6 X7 X0 X1 X2 X3) \wedge \\ & (r3\_rewrite3 X5 X6 X7 X0 X1 X4 X3))) \Rightarrow (X2 = X4)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k8\_afinsq\_1 X0))) \Rightarrow (\forall X2. ((\neg v2\_struct\_0 X2) \wedge (l1\_rewrite3 \\ & X2 X1)) \Rightarrow (\forall X3. \forall X4. \forall X5. (r4\_rewrite3 X0 X1 X2 \\ & X3 X4 X5) \Leftrightarrow (r3\_rewrite3 X0 X1 X2 X3 X4 X5 (k2\_flang\_1 X0)))))) \end{aligned} \quad (2)$$

## Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. (\neg v1\_xboole\_0 \\ & X4) \Rightarrow (\forall X5. (m1\_subset\_1 X5 (k1\_zfmisc\_1 (k8\_afinsq\_1 X4))) \Rightarrow \\ & (\forall X6. ((\neg v2\_struct\_0 X6) \wedge (l1\_rewrite3 X6 X5)) \Rightarrow (((v2\_rewrite3 \\ & X6 X4 X5) \wedge ((r4\_rewrite3 X4 X5 X6 X0 X1 X2) \wedge (r4\_rewrite3 X4 X5 X6 X0 \\ & X1 X3))) \Rightarrow (X2 = X3)))) \end{aligned}$$