

## t48\_rewrite2

(TMKjkaW41zAyDKYg7UXDvh9wt5Pki5nWUcm)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & \quad (k8\_afinsq\_1 X0) (k8\_afinsq\_1 X0)))) \Rightarrow (\forall X2. (m1\_subset\_1 \\ & \quad X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k8\_afinsq\_1 X0) (k8\_afinsq\_1 X0)))) \Rightarrow \\ & \quad (\forall X3. (m1\_subset\_1 X3 (k8\_afinsq\_1 X0)) \Rightarrow (\forall X4. (m1\_subset\_1 \\ & \quad X4 (k8\_afinsq\_1 X0)) \Rightarrow (((r1\_relset\_1 (k8\_afinsq\_1 X0) (k8\_afinsq\_1 \\ & \quad X0) X1 X2) \wedge (r3\_rewrite2 X0 X1 X3 X4)) \Rightarrow (r3\_rewrite2 X0 X2 X3 X4)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & \quad (k8\_afinsq\_1 X0) (k8\_afinsq\_1 X0)))) \Rightarrow (\forall X2. (m1\_subset\_1 \\ & \quad X2 (k8\_afinsq\_1 X0)) \Rightarrow (k8\_rewrite2 X0 X1 X2 = ReplSep (toset (\lambda X3 : \\ & \quad \iota. m1\_subset\_1 X3 (k8\_afinsq\_1 X0))) (\lambda X3 : \iota. r3\_rewrite2 \\ & \quad X0 X1 X2 X3) (\lambda X3 : \iota. X3)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{3}$$

### Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & \quad (k8\_afinsq\_1 X0) (k8\_afinsq\_1 X0)))) \Rightarrow (\forall X2. (m1\_subset\_1 \\ & \quad X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k8\_afinsq\_1 X0) (k8\_afinsq\_1 X0)))) \Rightarrow \\ & \quad (\forall X3. (m1\_subset\_1 X3 (k8\_afinsq\_1 X0)) \Rightarrow ((r1\_relset\_1 \\ & \quad (k8\_afinsq\_1 X0) (k8\_afinsq\_1 X0) X1 X2) \Rightarrow (r1\_tarski (k8\_rewrite2 \\ & \quad X0 X1 X3) (k8\_rewrite2 X0 X2 X3)))))) \end{aligned}$$