

## t9\_amistd\_4

(TMZn5uv6WGwX94DNsmKYSZbptLtE2L52Rpt)

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Let  $v1\_setfam\_1 : \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_compos\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_zfmisc\_1 : \iota \Rightarrow o$  be given. Let  $k4\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_amistd\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_amistd\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_setfam\_1 X0) \Rightarrow (\forall X1. ((\neg v2\_struct\_0 X1) \wedge \\ & ((v2\_memstr\_0 X1 X0) \wedge ((v3\_memstr\_0 X1 X0) \wedge (l1\_extpro\_1 X1 X0)))) \Rightarrow \\ & (\forall X2. (m1\_subset\_1 X2 (u1\_compos\_1 X1)) \Rightarrow (\forall X3. (m1\_subset\_1 \\ & X3 (u1\_struct\_0 X1)) \Rightarrow (\neg (v1\_zfmisc\_1 (k4\_memstr\_0 X0 X1 X3)) \wedge \\ & X3 \in k4\_amistd\_4 X0 X1 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_setfam\_1 X0) \Rightarrow (\forall X1. ((\neg v2\_struct\_0 X1) \wedge \\ & ((v2\_memstr\_0 X1 X0) \wedge ((v3\_memstr\_0 X1 X0) \wedge (l1\_extpro\_1 X1 X0)))) \Rightarrow \\ & (\forall X2. (m1\_subset\_1 X2 (u1\_compos\_1 X1)) \Rightarrow (r1\_tarski (k2\_amistd\_4 \\ & X0 X1 X2) (k4\_amistd\_4 X0 X1 X2)))))) \end{aligned} \tag{2}$$

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

$$\begin{aligned} & \forall X0. (\neg v1\_setfam\_1 X0) \Rightarrow (\forall X1. ((\neg v2\_struct\_0 X1) \wedge \\ & ((v2\_memstr\_0 X1 X0) \wedge ((v3\_memstr\_0 X1 X0) \wedge (l1\_extpro\_1 X1 X0)))) \Rightarrow \\ & (\forall X2. (m1\_subset\_1 X2 (u1\_compos\_1 X1)) \Rightarrow (\forall X3. (m1\_subset\_1 \\ & X3 (u1\_struct\_0 X1)) \Rightarrow (\neg (v1\_zfmisc\_1 (k4\_memstr\_0 X0 X1 X3)) \wedge \\ & X3 \in k2\_amistd\_4 X0 X1 X2)))))) \end{aligned}$$