

## t6\_amistd\_2

(TMYqtk7aKKkLdicHqCVsCKUkAKTDng7UeBU)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. 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  $v3\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_amistd\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_amistd\_2 : \iota \Rightarrow \iota \Rightarrow o$  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  $v4\_amistd\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_compos\_0 : \iota \Rightarrow o$  be given. Let  $v2\_compos\_0 : \iota \Rightarrow o$  be given. Let  $v3\_compos\_0 : \iota \Rightarrow o$  be given. Let  $v4\_compos\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_compos\_1 : \iota \Rightarrow o$  be given. Let  $v5\_compos\_0 : \iota \Rightarrow o$  be given. Let  $l1\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 X1) \wedge \\ & ((v1\_compos\_0 X1) \wedge ((v2\_compos\_0 X1) \wedge (v3\_compos\_0 X1)))) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 X1) \Rightarrow ((v4\_compos\_0 X2 X1) \Rightarrow (k5\_compos\_0 X1 X2 X0 = \\ & X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_compos\_1 X0) \Rightarrow ((v1\_compos\_0 (u1\_compos\_1 X0)) \wedge \\ & ((v2\_compos\_0 (u1\_compos\_1 X0)) \wedge ((v3\_compos\_0 (u1\_compos\_1 \\ & X0)) \wedge (v5\_compos\_0 (u1\_compos\_1 X0)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(l1\_extpro\_1 X1 X0) \Rightarrow ((l1\_memstr\_0 X1 X0) \wedge \\ & (l1\_compos\_1 X1)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1\_setfam\_1 X0) \wedge ((\neg v2\_struct\_0 X1) \wedge \\ & ((v2\_memstr\_0 X1 X0) \wedge ((v3\_memstr\_0 X1 X0) \wedge ((v2\_amistd\_2 X1 X0) \wedge \\ & (l1\_extpro\_1 X1 X0)))))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_compos\_1 \\ & X1)) \Rightarrow ((v4\_amistd\_1 X2 X0 X1) \Rightarrow (v4\_compos\_0 X2 (u1\_compos\_1 X1)))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(v5\_compos\_0 X0) \Rightarrow (\neg v1\_xboole\_0 X0) \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(\neg v1\_setfam\_1 X1) \Rightarrow ( \\ & \quad \forall X2.((\neg v2\_struct\_0 X2) \wedge ((v2\_memstr\_0 X2 X1) \wedge ((v3\_memstr\_0 \\ & \quad X2 X1) \wedge ((v3\_extpro\_1 X2 X1) \wedge ((v3\_amistd\_1 X2 X1) \wedge ((v2\_amistd\_2 \\ & \quad X2 X1) \wedge (l1\_extpro\_1 X2 X1)))))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\ & (u1\_compos\_1 X2)) \Rightarrow ((v4\_amistd\_1 X3 X1 X2) \Rightarrow (v4\_amistd\_1 (k5\_compos\_0 \\ & (u1\_compos\_1 X2) X3 X0) X1 X2)))))) \end{aligned}$$