

## l7\_amistd\_2

(TMXTv8caevQwxxdSzaKg3RMvAc1ekhYxefd)

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Let  $v1\_setfam\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_compos\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_compos\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_extpro\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_compos\_1 : \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v13\_struct\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $v1\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_compos\_1 : \iota \Rightarrow o$  be given. Let  $l1\_compos\_1 : \iota \Rightarrow o$  be given. Let  $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u2\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u2\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_partfun1 : \iota \Rightarrow \iota$  be given. Let  $k4\_card\_3 : \iota \Rightarrow \iota$  be given. Let  $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_compos\_0 (u1\_compos\_1 k1\_compos\_1))) \Rightarrow \\ & (k3\_compos\_0 (u1\_compos\_1 k1\_compos\_1) X0 = k6\_domain\_1 k5\_numbers \\ & \quad k6\_numbers) \end{aligned} \tag{1}$$

Assume the following.

$$m1\_subset\_1 k1\_xboole\_0 k4\_ordinal1 \tag{2}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow \\ & (k6\_domain\_1 X0 X1 = k1\_tarski X1) \end{aligned} \tag{4}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{5}$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (6)$$

Assume the following.

$$\forall X0. (\neg v1\_setfam\_1 X0) \Rightarrow ((v13\_struct\_0 (k1\_extpro\_1 X0) np\_1) \wedge (v1\_extpro\_1 (k1\_extpro\_1 X0) X0)) \quad (7)$$

Assume the following.

$$\forall X0. (\neg v1\_setfam\_1 X0) \Rightarrow ((v1\_extpro\_1 (k1\_extpro\_1 X0) X0) \wedge (l1\_extpro\_1 (k1\_extpro\_1 X0) X0)) \quad (8)$$

Assume the following.

$$(v1\_compos\_1 k1\_compos\_1) \wedge (l1\_compos\_1 k1\_compos\_1) \quad (9)$$

Assume the following.

$$\forall X0. ((v1\_compos\_1 X0) \wedge (l1\_compos\_1 X0)) \Rightarrow ((X0 = k1\_compos\_1) \Leftrightarrow (u1\_compos\_1 X0 = k1\_tarski (k3\_xtuple\_0 k6\_numbers k1\_xboole\_0 k1\_xboole\_0))) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_setfam\_1 X0) \Rightarrow (\forall X1. ((v1\_extpro\_1 X1 X0) \wedge \\ & (l1\_extpro\_1 X1 X0)) \Rightarrow ((X1 = k1\_extpro\_1 X0) \Leftrightarrow ((u1\_struct\_0 X1 = \\ & k6\_domain\_1 k5\_numbers k6\_numbers) \wedge ((u2\_struct\_0 X1 = k6\_numbers) \wedge \\ & ((u1\_compos\_1 X1 = k1\_tarski (k3\_xtuple\_0 k6\_numbers k1\_xboole\_0 \\ & k1\_xboole\_0)) \wedge (u1\_memstr\_0 X0 X1 = k16\_funcop\_1 k6\_numbers k6\_numbers) \wedge \\ & ((u2\_memstr\_0 X0 X1 = k7\_funcop\_1 X0 k5\_numbers) \wedge (u1\_extpro\_1 \\ & X0 X1 = k16\_funcop\_1 (k3\_xtuple\_0 k6\_numbers k1\_xboole\_0 k1\_xboole\_0) \\ & (k6\_partfun1 (k4\_card\_3 (k3\_relat\_1 (k16\_funcop\_1 k6\_numbers \\ & k6\_numbers) (k7\_funcop\_1 X0 k5\_numbers)))))))))) \quad (11) \end{aligned}$$

**Theorem 1**

$$\forall X0. (\neg v1\_setfam\_1 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_compos\_0 (u1\_compos\_1 (k1\_extpro\_1 X0)))) \Rightarrow (k3\_compos\_0 (u1\_compos\_1 (k1\_extpro\_1 X0)) X1 = k1\_tarski k6\_numbers))$$