

## t7\_ami\_2

(TMZNi3U335MMewnZRTUKFpkqnvYVpz59Fv3)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_ami\_2 : \iota$  be given. Let  $k2\_ami\_2 : \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_ami\_2 : \iota$  be given. Let  $k4\_ami\_2 : \iota$  be given. Let  $k4\_numbers : \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v5\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k6\_afinsq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1\_relat\_1 X2) \wedge ((v5\_ordinal1 \\ & X2) \wedge ((v1\_funct\_1 X2) \wedge (v1\_finset\_1 X2)))) \Rightarrow ((X2 = k6\_afinsq\_1 \\ X0 X1) \Leftrightarrow ((k1\_afinsq\_1 X2 = np\_2) \wedge ((k1\_funct\_1 X2 k6\_numbers = X0) \wedge \\ & (k1\_funct\_1 X2 np\_1 = X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow (\forall X2. \\ & ((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \Rightarrow ((X0 \in k9\_xtuple\_0 X1) \Rightarrow (k1\_funct\_1 \\ & (k3\_relat\_1 X1 X2) X0 = k1\_funct\_1 X2 (k1\_funct\_1 X1 X0)))) \end{aligned} \tag{3}$$

Assume the following.

$$\neg v1\_xboole\_0 np\_2 \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0 X0)\wedge \\ & (((v1\_funct\_1 X2)\wedge((v1\_funct\_2 X2 X0 X1)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X0 X1))))))\wedge(m1\_subset\_1 X3 X0)))\Rightarrow(k3\_funct\_2 X0 \\ & X1 X2 X3 = k1\_funct\_1 X2 X3) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1\_relat\_1 X1)\wedge(v4\_relat\_1 X1 X0))\Rightarrow( \\ & k1\_relset\_1 X0 X1 = k9\_xtuple\_0 X1) \end{aligned} \quad (6)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_ami\_2 \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(v5\_ordinal1 (k6\_afinsq\_1 X0 X1)\wedge(v1\_finset\_1 \\ & (k6\_afinsq\_1 X0 X1))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & (v1\_relat\_1 k4\_ami\_2)\wedge((v4\_relat\_1 k4\_ami\_2 np\_2)\wedge((v1\_funct\_1 \\ & k4\_ami\_2)\wedge(v1\_partfun1 k4\_ami\_2 np\_2))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & (v1\_funct\_1 k3\_ami\_2)\wedge((v1\_funct\_2 k3\_ami\_2 k1\_ami\_2 np\_2)\wedge \\ & (m1\_subset\_1 k3\_ami\_2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_ami\_2 np\_2)))) \end{aligned} \quad (10)$$

Assume the following.

$$k4\_ami\_2 = k6\_afinsq\_1 k5\_numbers k4\_numbers \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0)\wedge((v1\_funct\_2 X0 k1\_ami\_2 np\_2)\wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_ami\_2 np\_2))))))\Rightarrow \\ & ((X0 = k3\_ami\_2)\Leftrightarrow(\forall X1.(m1\_subset\_1 X1 k1\_ami\_2)\Rightarrow(((X1 = \\ & k5\_numbers)\Rightarrow(k3\_funct\_2 k1\_ami\_2 np\_2 X0 X1 = k6\_numbers))\wedge( \\ & (X1 \in k2\_ami\_2)\Rightarrow(k3\_funct\_2 k1\_ami\_2 np\_2 X0 X1 = np\_1)))))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1\_relat\_1 X1)\wedge(v4\_relat\_1 X1 X0))\Rightarrow( \\ & (v1\_partfun1 X1 X0)\Leftrightarrow(k1\_relset\_1 X0 X1 = X0)) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(\neg v1\_xboole\_0 X1)\Rightarrow(\forall X2.(m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow((v1\_funct\_2 X2 X0 X1)\Rightarrow( \\ & v1\_partfun1 X2 X0))) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow((v4\_relat\_1 X2 X0)\wedge(v5\_relat\_1 X2 X1)) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_relat\_1 X2) \quad (16)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 k1\_ami\_2)\Rightarrow((X0 \in k2\_ami\_2)\Rightarrow(k1\_funct\_1 (k3\_relat\_1 k3\_ami\_2 k4\_ami\_2) X0 = k4\_numbers))$$