

# t28\_cfuncdom (TMVCQCkgy- Mog5CVckGsqjAwRyB9pmJo6WYE)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k5\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k7\_cfuncdom : \iota \Rightarrow \iota$  be given. Let  $k5\_cfuncdom : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $g6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v36\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l3\_struct\_0 : \iota \Rightarrow o$  be given. Let  $u3\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $l2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $u2\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $l3\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $u2\_algstr\_0 : \iota \Rightarrow \iota$  be given. Let  $l1\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $u1\_algstr\_0 : \iota \Rightarrow \iota$  be given. Let  $l6\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l2\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l5\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l4\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l4\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k9\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_numbers : \iota$  be given. Let  $k1\_cfuncdom : \iota \Rightarrow \iota$  be given. Let  $k2\_cfuncdom : \iota \Rightarrow \iota$  be given. Let  $k4\_cfuncdom : \iota \Rightarrow \iota$  be given. Let  $k8\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_complex1 : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. (((v1\_funct\_1 \\ & X1) \wedge ((v1\_funct\_2 X1 (k2\_zfmisc\_1 X0 X0) X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0) X0)))))) \wedge (((v1\_funct\_1 X2) \wedge ( \\ & (v1\_funct\_2 X2 (k2\_zfmisc\_1 X0 X0) X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0) X0)))))) \wedge ((m1\_subset\_1 X3 X0) \wedge \\ & (m1\_subset\_1 X4 X0)))) \Rightarrow (\forall X5. \forall X6. \forall X7. \forall X8. \\ & \forall X9. (g6\_algstr\_0 X0 X1 X2 X3 X4 = g6\_algstr\_0 X5 X6 X7 X8 X9) \Rightarrow \\ & ((X0 = X5) \wedge ((X1 = X6) \wedge ((X2 = X7) \wedge ((X3 = X8) \wedge (X4 = X9)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow ((\neg v2\_struct\_0 (k7\_cfuncdom X0)) \wedge (v36\_algstr\_0 (k7\_cfuncdom X0))) \quad (2)$$

Assume the following.

$$\forall X0. (l3\_struct\_0 X0) \Rightarrow (m1\_subset\_1 (u3\_struct\_0 X0) (u1\_struct\_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(l2\_struct\_0 X0) \Rightarrow (m1\_subset\_1 (u2\_struct\_0 X0) (u1\_struct\_0 X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(l3\_algstr\_0 X0) \Rightarrow & ((v1\_funct\_1 (u2\_algstr\_0 X0)) \wedge \\ & ((v1\_funct\_2 (u2\_algstr\_0 X0) (k2\_zfmisc\_1 (u1\_struct\_0 X0) ( \\ & u1\_struct\_0 X0)) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 (u2\_algstr\_0 \\ & X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) ( \\ & u1\_struct\_0 X0)) (u1\_struct\_0 X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_algstr\_0 X0) \Rightarrow & ((v1\_funct\_1 (u1\_algstr\_0 X0)) \wedge \\ & ((v1\_funct\_2 (u1\_algstr\_0 X0) (k2\_zfmisc\_1 (u1\_struct\_0 X0) ( \\ & u1\_struct\_0 X0)) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 (u1\_algstr\_0 \\ & X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) ( \\ & u1\_struct\_0 X0)) (u1\_struct\_0 X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(l6\_algstr\_0 X0) \Rightarrow ((l2\_algstr\_0 X0) \wedge (l5\_algstr\_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l5\_algstr\_0 X0) \Rightarrow ((l4\_algstr\_0 X0) \wedge (l4\_struct\_0 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(l4\_struct\_0 X0) \Rightarrow ((l2\_struct\_0 X0) \wedge (l3\_struct\_0 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(l4\_algstr\_0 X0) \Rightarrow ((l3\_struct\_0 X0) \wedge (l3\_algstr\_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l2\_algstr\_0 X0) \Rightarrow ((l2\_struct\_0 X0) \wedge (l1\_algstr\_0 X0)) \quad (11)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (l6\_algstr\_0 (k7\_cfundom X0)) \quad (12)$$

Assume the following.

$$\forall X0.(l3\_struct\_0 X0) \Rightarrow (k5\_struct\_0 X0 = u3\_struct\_0 X0) \quad (13)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (k7\_cfunclom X0 = g6\_algstr\_0 (k9\_funcl.2 X0 k2\_numbers) (k1\_cfunclom X0) (k2\_cfunclom X0) (k5\_cfunclom X0) (k4\_cfunclom X0)) \quad (14)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (k5\_cfunclom X0 = k8\_funcop\_1 k2\_numbers X0 k6\_complex1) \quad (15)$$

Assume the following.

$$\forall X0.(l6\_algstr\_0 X0) \Rightarrow ((v36\_algstr\_0 X0) \Rightarrow (X0 = g6\_algstr\_0 (u1\_struct\_0 X0) (u1\_algstr\_0 X0) (u2\_algstr\_0 X0) (u3\_struct\_0 X0) (u2\_struct\_0 X0))) \quad (16)$$

**Theorem 1**

$$\forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (k5\_struct\_0 (k7\_cfunclom X0) = k5\_cfunclom X0)$$