

t38\_inensp\_1  
(TMRkjkcCrboGxsoXrFysTKQJ7cn6irrSwyS)

October 27, 2020

Let  $v15\_inensp\_1 : \iota \Rightarrow o$  be given. Let  $l2\_inensp\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_inensp\_1 : \iota \Rightarrow \iota$  be given. Let  $r2\_inensp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_inensp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_inensp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_inensp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u4\_inensp\_1 : \iota \Rightarrow \iota$  be given. Let  $r5\_inensp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_inensp\_1 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(l2\_inensp\_1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_inensp\_1 \\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_inensp\_1 X0)) \Rightarrow (\forall X3. \\ (m1\_subset\_1 X3 (u1\_inensp\_1 X0)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 \\ (u1\_inensp\_1 X0)) \Rightarrow (\forall X5.(m1\_subset\_1 X5 (u4\_inensp\_1 X0)) \Rightarrow \\ ((r5\_inensp\_1 X0 (k9\_domain\_1 (u1\_inensp\_1 X0) X1 X2 X3 X4) X5) \Leftrightarrow (( \\ r2\_inensp\_1 X0 X1 X5) \wedge ((r2\_inensp\_1 X0 X2 X5) \wedge ((r2\_inensp\_1 X0 X3 X5) \wedge \\ (r2\_inensp\_1 X0 X4 X5)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(l2\_inensp\_1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_inensp\_1 \\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_inensp\_1 X0)) \Rightarrow (\forall X3. \\ (m1\_subset\_1 X3 (u1\_inensp\_1 X0)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 \\ (u4\_inensp\_1 X0)) \Rightarrow ((r5\_inensp\_1 X0 (k8\_domain\_1 (u1\_inensp\_1 X0) \\ X1 X2 X3) X4) \Leftrightarrow ((r2\_inensp\_1 X0 X1 X4) \wedge ((r2\_inensp\_1 X0 X2 X4) \wedge (r2\_inensp\_1 \\ X0 X3 X4)))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.((v15\_inensp\_1 X0) \wedge (l2\_inensp\_1 X0)) \Rightarrow (\forall X1.( \\ m1\_subset\_1 X1 (u1\_inensp\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 ( \\ u1\_inensp\_1 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_inensp\_1 X0)) \Rightarrow \\ ((\neg v3\_inensp\_1 (k8\_domain\_1 (u1\_inensp\_1 X0) X1 X2 X3) X0) \Rightarrow (k2\_inensp\_1 \\ X0 X1 X2 X3 = k2\_inensp\_1 X0 X1 X3 X2)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.((v15\_incsp\_1 X0) \wedge (l2\_incsp\_1 X0)) \Rightarrow (\forall X1. ( \\ m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 ( \\ u1\_incsp\_1 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_incsp\_1 X0)) \Rightarrow \\ (\neg(\neg v3\_incsp\_1 (k8\_domain\_1 (u1\_incsp\_1 X0) X1 X2 X3) X0) \wedge (\forall X4. \\ (m1\_subset\_1 X4 (u4\_incsp\_1 X0)) \Rightarrow (\neg \forall X5. (m1\_subset\_1 X5 \\ (u4\_incsp\_1 X0)) \Rightarrow ((r5\_incsp\_1 X0 (k8\_domain\_1 (u1\_incsp\_1 X0) \\ X1 X2 X3) X5) \Leftrightarrow (X4 = X5)))))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (l1\_incsp\_1 X0) \Rightarrow (\neg v1\_xboole\_0 (u1\_incsp\_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0. (l2\_incsp\_1 X0) \Rightarrow (l1\_incsp\_1 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((\neg v1\_xboole\_0 \\ X0) \wedge ((m1\_subset\_1 X1 X0) \wedge ((m1\_subset\_1 X2 X0) \wedge ((m1\_subset\_1 \\ X3 X0) \wedge (m1\_subset\_1 X4 X0)))))) \Rightarrow (m1\_subset\_1 (k9\_domain\_1 X0 X1 \\ X2 X3 X4) (k1\_zfmisc\_1 X0)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. (((v15\_incsp\_1 X0) \wedge \\ (l2\_incsp\_1 X0)) \wedge ((m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \wedge ((m1\_subset\_1 \\ X2 (u1\_incsp\_1 X0)) \wedge (m1\_subset\_1 X3 (u1\_incsp\_1 X0)))))) \Rightarrow (m1\_subset\_1 \\ (k2\_incsp\_1 X0 X1 X2 X3) (u4\_incsp\_1 X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0. (l2\_incsp\_1 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ (u1\_incsp\_1 X0))) \Rightarrow ((v4\_incsp\_1 X1 X0) \Leftrightarrow (\exists X2. (m1\_subset\_1 \\ X2 (u4\_incsp\_1 X0)) \wedge (r5\_incsp\_1 X0 X1 X2)))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v15\_incsp\_1 X0) \wedge (l2\_incsp\_1 X0)) \Rightarrow (\forall X1. ( \\ m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 ( \\ u1\_incsp\_1 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_incsp\_1 X0)) \Rightarrow \\ ((\neg v3\_incsp\_1 (k8\_domain\_1 (u1\_incsp\_1 X0) X1 X2 X3) X0) \Rightarrow (\forall X4. \\ (m1\_subset\_1 X4 (u4\_incsp\_1 X0)) \Rightarrow ((X4 = k2\_incsp\_1 X0 X1 X2 X3) \Leftrightarrow \\ (r5\_incsp\_1 X0 (k8\_domain\_1 (u1\_incsp\_1 X0) X1 X2 X3) X4)))))))) \end{aligned} \quad (10)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v15\_incsp\_1 X0) \wedge (l2\_incsp\_1 X0)) \Rightarrow (\forall X1.( \\ & m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 ( \\ & u1\_incsp\_1 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_incsp\_1 X0)) \Rightarrow \\ & (\forall X4.(m1\_subset\_1 X4 (u1\_incsp\_1 X0)) \Rightarrow ((r2\_incsp\_1 X0 \\ & X4 (k2\_incsp\_1 X0 X1 X2 X3)) \Rightarrow ((v3\_incsp\_1 (k8\_domain\_1 (u1\_incsp\_1 \\ & X0) X1 X2 X3) X0) \vee (v4\_incsp\_1 (k9\_domain\_1 (u1\_incsp\_1 X0) X1 X2 \\ & X3 X4) X0)))))))) \end{aligned}$$