

t46\_incsp\_1  
(TMURMH1aJPUhXdDcfeF94w8QHRshKpvbiquv)

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Let  $v15\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $l2\_incsp\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_incsp\_1 : \iota \Rightarrow \iota$  be given. Let  $u4\_incsp\_1 : \iota \Rightarrow \iota$  be given. Let  $r5\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r2\_incsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(l2\_incsp\_1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_incsp\_1 \\ & X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_incsp\_1 X0)) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (u1\_incsp\_1 X0)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 \\ & (u4\_incsp\_1 X0)) \Rightarrow ((r5\_incsp\_1 X0 (k8\_domain\_1 (u1\_incsp\_1 X0) \\ & X1 X2 X3) X4) \Leftrightarrow ((r2\_incsp\_1 X0 X1 X4) \wedge ((r2\_incsp\_1 X0 X2 X4) \wedge (r2\_incsp\_1 \\ & X0 X3 X4)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v15\_incsp\_1 X0) \wedge (l2\_incsp\_1 X0)) \Rightarrow (\forall X1.( \\ & m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 ( \\ & u1\_incsp\_1 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u4\_incsp\_1 X0)) \Rightarrow \\ & (\neg(X1 \neq X2) \wedge (\forall X4.(m1\_subset\_1 X4 (u1\_incsp\_1 X0)) \Rightarrow (\neg(r2\_incsp\_1 \\ & X0 X4 X3) \wedge (\neg v3\_incsp\_1 (k8\_domain\_1 (u1\_incsp\_1 X0) X1 X2 X4) X0))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v15\_incsp\_1 X0) \wedge (l2\_incsp\_1 X0)) \Rightarrow (\forall X1.( \\ & m1\_subset\_1 X1 (u4\_incsp\_1 X0)) \Rightarrow (\exists X2.(m1\_subset\_1 X2 ( \\ & u1\_incsp\_1 X0)) \wedge (\exists X3.(m1\_subset\_1 X3 (u1\_incsp\_1 X0)) \wedge \\ & (\exists X4.(m1\_subset\_1 X4 (u1\_incsp\_1 X0)) \wedge (r5\_incsp\_1 X0 \\ & (k8\_domain\_1 (u1\_incsp\_1 X0) X2 X3 X4) X1) \wedge (\neg v3\_incsp\_1 (k8\_domain\_1 \\ & (u1\_incsp\_1 X0) X2 X3 X4) X0)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l2\_incsp\_1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_incsp\_1 \\
& \quad X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_incsp\_1 X0)) \Rightarrow (\forall X3. \\
& \quad (m1\_subset\_1 X3 (u4\_incsp\_1 X0)) \Rightarrow ((r5\_incsp\_1 X0 (k7\_domain\_1 \\
& \quad (u1\_incsp\_1 X0) X1 X2) X3) \Leftrightarrow ((r2\_incsp\_1 X0 X1 X3) \wedge (r2\_incsp\_1 X0 \\
& \quad \quad X2 X3))))))
\end{aligned} \tag{4}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((v15\_incsp\_1 X0) \wedge (l2\_incsp\_1 X0)) \Rightarrow (\forall X1.( \\
& \quad m1\_subset\_1 X1 (u1\_incsp\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 ( \\
& \quad u4\_incsp\_1 X0)) \Rightarrow (\exists X3.(m1\_subset\_1 X3 (u1\_incsp\_1 X0)) \wedge \\
& \quad (\exists X4.(m1\_subset\_1 X4 (u1\_incsp\_1 X0)) \wedge ((r5\_incsp\_1 X0 \\
& \quad (k7\_domain\_1 (u1\_incsp\_1 X0) X3 X4) X2) \wedge (\neg v3\_incsp\_1 (k8\_domain\_1 \\
& \quad \quad (u1\_incsp\_1 X0) X1 X3 X4) X0))))))
\end{aligned}$$