

t3\_conmetr  
(TMKiM1MpitnoZS7APimuRZT5vbZtMjHdryL)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v3\_analmetr : \iota \Rightarrow o$  be given. Let  $l1\_analmetr : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v4\_analmetr : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r10\_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r7\_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r4\_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_analmetr : \iota \Rightarrow o$  be given. Let  $k3\_analmetr : \iota \Rightarrow \iota$  be given. Let  $k2\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v7\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_diraf : \iota \Rightarrow o$  be given. Let  $l1\_analoaf : \iota \Rightarrow o$  be given. Let  $v1\_analoaf : \iota \Rightarrow o$  be given. Let  $v2\_diraf : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_analmetr X0)) \Rightarrow (\forall X1. \\
& (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. \\
& (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((r7\_analmetr \\
& X0 X1 X2) \Leftrightarrow (\exists X3.(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \wedge (\exists X4. \\
& (m1\_subset\_1 X4 (u1\_struct\_0 X0)) \wedge (\exists X5.(m1\_subset\_1 X5 \\
& (u1\_struct\_0 X0)) \wedge (\exists X6.(m1\_subset\_1 X6 (u1\_struct\_0 X0)) \wedge \\
& ((X3 \neq X4) \wedge ((X5 \neq X6) \wedge ((X1 = k4\_analmetr X0 X3 X4) \wedge ((X2 = k4\_analmetr \\
& X0 X5 X6) \wedge (r4\_analmetr X0 X3 X4 X5 X6))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_analmetr X0) \wedge (l1\_analmetr \\
& X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\
& (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\
& (u1\_struct\_0 (k3\_analmetr X0))) \Rightarrow (\forall X4.(m1\_subset\_1 X4 \\
& (u1\_struct\_0 (k3\_analmetr X0))) \Rightarrow (((X1 = X3) \wedge (X2 = X4)) \Rightarrow (k4\_analmetr \\
& X0 X1 X2 = k2\_aff\_1 (k3\_analmetr X0) X3 X4))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_analmetr X0)) \Rightarrow ((v3\_analmetr \\
& X0) \Leftrightarrow ((\neg \forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\
& (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (X1 = X2))) \wedge (\forall X1.(m1\_subset\_1 \\
& X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\
& X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\forall X4. \\
& (m1\_subset\_1 X4 (u1\_struct\_0 X0)) \Rightarrow (\forall X5.(m1\_subset\_1 X5 \\
& (u1\_struct\_0 X0)) \Rightarrow (\forall X6.(m1\_subset\_1 X6 (u1\_struct\_0 X0)) \Rightarrow \\
& (\forall X7.(m1\_subset\_1 X7 (u1\_struct\_0 X0)) \Rightarrow (\forall X8.(m1\_subset\_1 \\
& X8 (u1\_struct\_0 X0)) \Rightarrow ((r2\_analoaf X0 X1 X2 X2 X1) \wedge ((r2\_analoaf \\
& X0 X1 X2 X3 X3) \wedge ((\neg (r2\_analoaf X0 X1 X2 X5 X6) \wedge (r2\_analoaf X0 X1 X2 \\
& X7 X8) \wedge ((\neg r2\_analoaf X0 X5 X6 X7 X8) \wedge (X1 \neq X2)))) \wedge ((r2\_analoaf \\
& X0 X1 X2 X1 X3) \Rightarrow (r2\_analoaf X0 X2 X1 X2 X3)) \wedge ((\exists X9.(m1\_subset\_1 \\
& X9 (u1\_struct\_0 X0)) \wedge (r2\_analoaf X0 X1 X2 X3 X9) \wedge (r2\_analoaf X0 \\
& X1 X3 X2 X9))) \wedge ((\neg \forall X9.(m1\_subset\_1 X9 (u1\_struct\_0 X0)) \Rightarrow \\
& (\forall X10.(m1\_subset\_1 X10 (u1\_struct\_0 X0)) \Rightarrow (\forall X11. \\
& (m1\_subset\_1 X11 (u1\_struct\_0 X0)) \Rightarrow (r2\_analoaf X0 X9 X10 X9 X11)))) \wedge \\
& ((\exists X9.(m1\_subset\_1 X9 (u1\_struct\_0 X0)) \wedge (r2\_analoaf \\
& X0 X1 X2 X3 X9) \wedge (X3 \neq X9))) \wedge ((\neg (r2\_analoaf X0 X1 X2 X2 X4) \wedge ((X2 \neq X1) \wedge \\
& (\forall X9.(m1\_subset\_1 X9 (u1\_struct\_0 X0)) \Rightarrow (\neg (r2\_analoaf \\
& X0 X3 X2 X2 X9) \wedge (r2\_analoaf X0 X3 X1 X4 X9)))))) \wedge (((r4\_analmetr X0 \\
& X1 X2 X1 X2) \Rightarrow (X1 = X2)) \wedge ((r4\_analmetr X0 X1 X2 X3 X3) \wedge ((r4\_analmetr \\
& X0 X1 X2 X3 X4) \Rightarrow ((r4\_analmetr X0 X1 X2 X4 X3) \wedge (r4\_analmetr X0 X3 X4 \\
& X1 X2))) \wedge ((\neg (r4\_analmetr X0 X1 X2 X5 X6) \wedge ((r2\_analoaf X0 X1 X2 X7 \\
& X8) \wedge ((\neg r4\_analmetr X0 X5 X6 X7 X8) \wedge (X1 \neq X2)))) \wedge ((\neg (r4\_analmetr \\
& X0 X1 X2 X5 X6) \wedge ((r4\_analmetr X0 X1 X2 X7 X8) \wedge ((\neg r2\_analoaf X0 X5 X6 \\
& X7 X8) \wedge (X1 \neq X2)))) \wedge ((\exists X9.(m1\_subset\_1 X9 (u1\_struct\_0 \\
& X0)) \wedge ((r4\_analmetr X0 X1 X2 X3 X9) \wedge (X3 \neq X9))) \wedge (\neg (\neg r2\_analoaf X0 \\
& X1 X2 X3 X4) \wedge (\forall X9.(m1\_subset\_1 X9 (u1\_struct\_0 X0)) \Rightarrow (\neg ( \\
& r2\_analoaf X0 X1 X2 X1 X9) \wedge (r2\_analoaf X0 X3 X4 X3 X9)))))))))))))))))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_analmetr X0)) \Rightarrow (\forall X1. \\
& (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Leftrightarrow (m1\_subset\_1 X1 (u1\_struct\_0 \\
& (k3\_analmetr X0))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\
& (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 \\
& X2 (u1\_struct\_0 X0)) \Rightarrow ((X1 \in k2\_aff\_1 X0 X1 X2) \wedge (X2 \in k2\_aff\_1 X0 X1 \\
& X2))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge ((v2\_analmetr \\ X0) \wedge (l1\_analmetr X0))) \wedge ((m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ X0))) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))) \Rightarrow ((r10\_analmetr \\ X0 X1 X2) \Leftrightarrow (r7\_analmetr X0 X1 X2)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. (((\neg v2\_struct\_0 X0) \wedge ((v3\_analmetr X0) \wedge (l1\_analmetr \\ X0))) \Rightarrow ((\neg v7\_struct\_0 (k3\_analmetr X0)) \wedge ((v1\_analoaf (k3\_analmetr \\ X0)) \wedge ((v1\_diraf (k3\_analmetr X0)) \wedge (v2\_diraf (k3\_analmetr X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge (l1\_analmetr \\ X0)) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (u1\_struct\_0 \\ X0)))) \Rightarrow (m1\_subset\_1 (k4\_analmetr X0 X1 X2) (k1\_zfmisc\_1 (u1\_struct\_0 \\ X0))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0. (((\neg v2\_struct\_0 X0) \wedge (l1\_analmetr X0)) \Rightarrow ((v1\_analoaf \\ (k3\_analmetr X0)) \wedge (l1\_analoaf (k3\_analmetr X0)))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0. (((\neg v2\_struct\_0 X0) \wedge (l1\_analmetr X0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((v4\_analmetr \\ X1 X0) \Leftrightarrow (\exists X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \wedge (\exists X3. \\ (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \wedge ((X2 \neq X3) \wedge (X1 = k4\_analmetr \\ X0 X2 X3))))))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf \\ X0) \wedge (l1\_analoaf X0))) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 \\ X2 (u1\_struct\_0 X0)))) \Rightarrow (k2\_aff\_1 X0 X1 X2 = k2\_aff\_1 X0 X2 X1) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1\_analmetr X0) \Rightarrow (((\neg v2\_struct\_0 X0) \wedge (v3\_analmetr \\ X0)) \Rightarrow ((\neg v2\_struct\_0 X0) \wedge (v2\_analmetr X0))) \end{aligned} \quad (12)$$

**Theorem 1**

$$\begin{aligned} \forall X0. (((\neg v2\_struct\_0 X0) \wedge ((v3\_analmetr X0) \wedge (l1\_analmetr \\ X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ X0))) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\neg (v4\_analmetr \\ X1 X0) \wedge (\forall X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 \\ X0))) \Rightarrow (\neg (X2 \in X3) \wedge (r10\_analmetr X0 X1 X3))))))) \end{aligned}$$