

t4\_homothet  
(TMYLJ8pwLZ6kYFGZLUeoRk6NqQ671fTTwJj)

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Let  $v7\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_diraf : \iota \Rightarrow o$  be given. Let  $v2\_diraf : \iota \Rightarrow o$  be given. Let  $l1\_analoaf : \iota \Rightarrow o$  be given. Let  $v4\_aff\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v6\_transgeo : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge ((v2\_diraf X0) \wedge \\
& (l1\_analoaf X0)))) \Rightarrow ((v4\_aff\_2 X0) \Rightarrow (\forall X1. (m1\_subset\_1 \\
& X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 \\
& X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\neg (X1 \neq X2) \wedge \\
& ((X1 \neq X3) \wedge ((r1\_aff\_1 X0 X1 X2 X3) \wedge (\forall X4. ((v1\_funct\_1 X4) \wedge \\
& ((v1\_funct\_2 X4 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) \wedge ((v3\_funct\_2 \\
& X4 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X4 (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)))))) \Rightarrow (\neg (v6\_transgeo \\
& X4 X0) \wedge ((k3\_funct\_2 (u1\_struct\_0 X0) (u1\_struct\_0 X0) X4 X1 = X1) \wedge \\
& (k3\_funct\_2 (u1\_struct\_0 X0) (u1\_struct\_0 X0) X4 X2 = X3))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge ((v2\_diraf X0) \wedge \\
& (l1\_analoaf X0)))) \Rightarrow ((\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 \\
& X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. \\
& (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\neg (X1 \neq X2) \wedge ((X1 \neq X3) \wedge ((r1\_aff\_1 \\
& X0 X1 X2 X3) \wedge (\forall X4. ((v1\_funct\_1 X4) \wedge ((v1\_funct\_2 X4 (u1\_struct\_0 \\
& X0) (u1\_struct\_0 X0)) \wedge ((v3\_funct\_2 X4 (u1\_struct\_0 X0) (u1\_struct\_0 \\
& X0)) \wedge (m1\_subset\_1 X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\
& X0) (u1\_struct\_0 X0)))))) \Rightarrow (\neg (v6\_transgeo X4 X0) \wedge ((k3\_funct\_2 \\
& (u1\_struct\_0 X0) (u1\_struct\_0 X0) X4 X1 = X1) \wedge (k3\_funct\_2 (u1\_struct\_0 \\
& X0) (u1\_struct\_0 X0) X4 X2 = X3)))))))))) \Rightarrow (v4\_aff\_2 X0)
\end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge ((v2\_diraf X0) \wedge \\ & (l1\_analoaf X0)))) \Rightarrow ((v4\_aff\_2 X0) \Leftrightarrow (\forall X1.(m1\_subset\_1 \\ & X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\ & X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\neg(X1 \neq X2) \wedge \\ & ((X1 \neq X3) \wedge ((r1\_aff\_1 X0 X1 X2 X3) \wedge (\forall X4.((v1\_funct\_1 X4) \wedge \\ & ((v1\_funct\_2 X4 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) \wedge ((v3\_funct\_2 \\ & X4 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X4 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)))))))) \Rightarrow (\neg(v6\_transgeo \\ & X4 X0) \wedge ((k3\_funct\_2 (u1\_struct\_0 X0) (u1\_struct\_0 X0) X4 X1 = X1) \wedge \\ & (k3\_funct\_2 (u1\_struct\_0 X0) (u1\_struct\_0 X0) X4 X2 = X3)))))))))) \end{aligned}$$