

t46\_aff\_4

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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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_aff\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r2\_aff\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\
& (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& (\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& (\forall X4.(m1\_subset\_1 X4 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& (((v1\_aff\_4 X1 X0) \wedge ((v1\_aff\_4 X2 X0) \wedge ((v1\_aff\_1 X3 X0) \wedge ((v1\_aff\_1 \\
& X4 X0) \wedge ((r1\_tarski X3 X1) \wedge ((r1\_tarski X4 X1) \wedge ((r1\_tarski X3 X2) \wedge \\
& (r1\_tarski X4 X2)))))) \Rightarrow ((X3 = X4) \vee (X1 = X2))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\
& (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& (\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\
& ((r2\_aff\_4 X0 X1 X2 X3) \Leftrightarrow (\exists X4.(m1\_subset\_1 X4 (k1\_zfmisc\_1 \\
& (u1\_struct\_0 X0))) \wedge ((r1\_tarski X1 X4) \wedge ((r1\_tarski X2 X4) \wedge ((r1\_tarski \\
& X3 X4) \wedge (v1\_aff\_4 X4 X0))))))
\end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\ & \quad (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & \quad (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & \quad (\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & \quad (\forall X4.(m1\_subset\_1 X4 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & \quad (((v1\_aff\_1 X1 X0) \wedge (v1\_aff\_1 X2 X0) \wedge (v1\_aff\_4 X3 X0) \wedge (r1\_tarski \\ & \quad X1 X3) \wedge (r1\_tarski X2 X3)))) \Rightarrow ((X1 = X2) \vee ((r2\_aff\_4 X0 X1 X2 X4) \Leftrightarrow \\ & \quad (r1\_tarski X4 X3))))))))) \end{aligned}$$