

t42\_aff\_1

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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  $r3\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 \\ & X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 \\ & X0)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 (u1\_struct\_0 X0)) \Rightarrow ((r2\_analoaf \\ & X0 X1 X2 X3 X4) \Rightarrow ((r2\_analoaf X0 X1 X2 X4 X3) \wedge ((r2\_analoaf X0 X2 X1 X3 \\ & X4) \wedge ((r2\_analoaf X0 X2 X1 X4 X3) \wedge ((r2\_analoaf X0 X3 X4 X1 X2) \wedge ((r2\_analoaf \\ & X0 X3 X4 X2 X1) \wedge ((r2\_analoaf X0 X4 X3 X1 X2) \wedge (r2\_analoaf X0 X4 X3 X2 \\ & X1))))))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & ((r3\_aff\_1 X0 X1 X2) \Leftrightarrow (\exists X3.(m1\_subset\_1 X3 (u1\_struct\_0 \\ & X0)) \wedge (\exists X4.(m1\_subset\_1 X4 (u1\_struct\_0 X0)) \wedge (\exists X5. \\ & (m1\_subset\_1 X5 (u1\_struct\_0 X0)) \wedge (\exists X6.(m1\_subset\_1 X6 \\ & (u1\_struct\_0 X0)) \wedge ((X3 \neq X4) \wedge ((X5 \neq X6) \wedge ((r2\_analoaf X0 X3 X4 X5 \\ & X6) \wedge ((X1 = k2\_aff\_1 X0 X3 X4) \wedge (X2 = k2\_aff\_1 X0 X5 X6))))))))))))) \end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v7\_struct\_0 X0) \wedge ((v1\_diraf X0) \wedge (l1\_analoaf X0))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow \\ & ((r3\_aff\_1 X0 X1 X2) \Rightarrow (r3\_aff\_1 X0 X2 X1)))) \end{aligned}$$