

## t24\_analoaf

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v13\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v2\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v3\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v5\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v6\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v7\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v8\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k3\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_analoaf : \iota \Rightarrow \iota$  be given. Let  $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_analoaf : \iota \Rightarrow \iota$  be given. Let  $r1\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $g1\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_analoaf : \iota \Rightarrow o$  be given. Let  $l1\_analoaf : \iota \Rightarrow o$  be given. Let  $u1\_analoaf : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\
 & ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 X0)))))))))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow \\
 & (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\forall X4. (m1\_subset\_1 X4 (u1\_struct\_0 \\
 & X0)) \Rightarrow ((k1\_domain\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) (k1\_domain\_1 \\
 & (u1\_struct\_0 X0) (u1\_struct\_0 X0) X1 X2) (k1\_domain\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0) X3 X4) \in k1\_analoaf X0) \Leftrightarrow (r1\_analoaf X0 X1 X2 \\
 & X3 X4))))))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\
& X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\
& ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 \\
& X0)))))))))) \Rightarrow ((\exists X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge \\
& (\exists X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \wedge (\forall X3.(m1\_subset\_1 \\
& X3 (u1\_struct\_0 X0)) \Rightarrow (\exists X4.(m1\_subset\_1 X4 k1\_numbers) \wedge \\
& (\exists X5.(m1\_subset\_1 X5 k1\_numbers) \wedge (k3\_rlvect\_1 X0 (k1\_rlvect\_1 \\
& X0 X1 X4) (k1\_rlvect\_1 X0 X2 X5) = X3)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\
& X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\
& X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\forall X4. \\
& (m1\_subset\_1 X4 (u1\_struct\_0 X0)) \Rightarrow (\neg(\neg r1\_analoaf X0 X1 X2 X3 X4) \wedge \\
& ((\neg r1\_analoaf X0 X1 X2 X4 X3) \wedge (\forall X5.(m1\_subset\_1 X5 (u1\_struct\_0 \\
& X0)) \Rightarrow (\neg((r1\_analoaf X0 X1 X2 X1 X5) \vee (r1\_analoaf X0 X1 X2 X5 X1)) \wedge \\
& ((r1\_analoaf X0 X3 X4 X3 X5) \vee (r1\_analoaf X0 X3 X4 X5 X3))))))))))))) \\
& \tag{2}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& (k2\_zfmisc\_1 X0 X0) (k2\_zfmisc\_1 X0 X0))) \Rightarrow (\forall X2. \forall X3. \\
& (g1\_analoaf X0 X1 = g1\_analoaf X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \\
& \tag{3}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\
& X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\
& ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 \\
& X0)))))))))) \Rightarrow ((\neg v2\_struct\_0 (k2\_analoaf X0)) \wedge (v1\_analoaf ( \\
& k2\_analoaf X0))) \\
& \tag{4}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\
& X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\
& ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 \\
& X0)))))))))) \Rightarrow ((v1\_analoaf (k2\_analoaf X0)) \wedge (l1\_analoaf (k2\_analoaf \\
& X0))) \\
& \tag{5}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\
& X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\
& ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 \\
& X0)))))))))) \Rightarrow (m1\_subset\_1 (k1\_analoaf X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) (k2\_zfmisc\_1 \\
& (u1\_struct\_0 X0) (u1\_struct\_0 X0)))))) \\
& \tag{6}
\end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\ X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\ ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 \\ X0)))))))))) \Rightarrow (k2\_analoaf X0 = g1\_analoaf (u1\_struct\_0 X0) (k1\_analoaf \\ X0)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_analoaf X0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 \\ (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow \\ (\forall X4.(m1\_subset\_1 X4 (u1\_struct\_0 X0)) \Rightarrow ((r2\_analoaf X0 \\ X1 X2 X3 X4) \Leftrightarrow (k1\_domain\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 \\ X0)) (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)) (k1\_domain\_1 \\ (u1\_struct\_0 X0) (u1\_struct\_0 X0) X1 X2) (k1\_domain\_1 (u1\_struct\_0 \\ X0) (u1\_struct\_0 X0) X3 X4) \in u1\_analoaf X0)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(l1\_analoaf X0) \Rightarrow ((v1\_analoaf X0) \Rightarrow (X0 = g1\_analoaf \\ (u1\_struct\_0 X0) (u1\_analoaf X0))) \quad (9)$$

### Theorem 1

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\ X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\ ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 \\ X0)))))))))) \Rightarrow ((\exists X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge \\ (\exists X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \wedge (\forall X3.(m1\_subset\_1 \\ X3 (u1\_struct\_0 X0)) \Rightarrow (\exists X4.(m1\_subset\_1 X4 k1\_numbers) \wedge \\ (\exists X5.(m1\_subset\_1 X5 k1\_numbers) \wedge (k3\_rlvect\_1 X0 (k1\_rlvect\_1 \\ X0 X1 X4) (k1\_rlvect\_1 X0 X2 X5) = X3)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 (u1\_struct\_0 (k2\_analoaf X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 \\ (u1\_struct\_0 (k2\_analoaf X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 ( \\ u1\_struct\_0 (k2\_analoaf X0)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 (u1\_struct\_0 \\ (k2\_analoaf X0)) \Rightarrow (\neg(\neg r2\_analoaf (k2\_analoaf X0) X1 X2 X3 X4) \wedge \\ ((\neg r2\_analoaf (k2\_analoaf X0) X1 X2 X4 X3) \wedge (\forall X5.(m1\_subset\_1 \\ X5 (u1\_struct\_0 (k2\_analoaf X0)) \Rightarrow (\neg((r2\_analoaf (k2\_analoaf \\ X0) X1 X2 X1 X5) \vee (r2\_analoaf (k2\_analoaf X0) X1 X2 X5 X1)) \wedge ((r2\_analoaf \\ (k2\_analoaf X0) X3 X4 X3 X5) \vee (r2\_analoaf (k2\_analoaf X0) X3 X4 X5 \\ X3)))))))))))))) \end{aligned}$$