

# l8\_analmetr (TMdqNKn- fxVbQ2ZdFfv5JWgRmS8N8LQC9MPL)

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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  $r1\_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  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  $k6\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\
& X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\
& ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((\forall X3.( \\
& m1\_subset\_1 X3 k1\_numbers) \Rightarrow (\forall X4.(m1\_subset\_1 X4 k1\_numbers) \Rightarrow \\
& ((k3\_rlvect\_1 X0 (k1\_rlvect\_1 X0 X1 X3) (k1\_rlvect\_1 X0 X2 X4) = k4\_struct\_0 \\
& X0) \Rightarrow ((X3 = k6\_numbers) \wedge (X4 = k6\_numbers)))))) \Rightarrow ((X1 \neq X2) \wedge ((X1 \neq \\
& k4\_struct\_0 X0) \wedge (X2 \neq k4\_struct\_0 X0))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v13\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 \\
& X0) \wedge ((v3\_rlvect\_1 X0) \wedge ((v4\_rlvect\_1 X0) \wedge ((v5\_rlvect\_1 X0) \wedge \\
& ((v6\_rlvect\_1 X0) \wedge ((v7\_rlvect\_1 X0) \wedge ((v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((r1\_analmetr \\
& X0 X1 X2) \Leftrightarrow ((\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\exists X4. \\
& (m1\_subset\_1 X4 k1\_numbers) \wedge (\exists X5.(m1\_subset\_1 X5 k1\_numbers) \wedge \\
& (X3 = k3\_rlvect\_1 X0 (k1\_rlvect\_1 X0 X1 X4) (k1\_rlvect\_1 X0 X2 X5)))))) \wedge \\
& (\forall X3.(m1\_subset\_1 X3 k1\_numbers) \Rightarrow (\forall X4.(m1\_subset\_1 \\
& X4 k1\_numbers) \Rightarrow ((k3\_rlvect\_1 X0 (k1\_rlvect\_1 X0 X1 X3) (k1\_rlvect\_1 \\
& X0 X2 X4) = k4\_struct\_0 X0) \Rightarrow ((X3 = k6\_numbers) \wedge (X4 = k6\_numbers)))))))))
\end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge (v13\_algstr\_0 X0) \wedge (v2\_rlvect\_1 \\ & X0) \wedge (v3\_rlvect\_1 X0) \wedge (v4\_rlvect\_1 X0) \wedge (v5\_rlvect\_1 X0) \wedge \\ & ((v6\_rlvect\_1 X0) \wedge (v7\_rlvect\_1 X0) \wedge (v8\_rlvect\_1 X0) \wedge (l1\_rlvect\_1 \\ & X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((r1\_analmetr \\ & X0 X1 X2) \Rightarrow ((X1 \neq k4\_struct\_0 X0) \wedge (X2 \neq k4\_struct\_0 X0)))))) \end{aligned}$$