

# t4\_analmetr (TM- RqEK1K19Hcy6XqKwiUhvDoxBR6GWrJfCh)

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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  $r2\_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_membered : \iota \Rightarrow o$  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  $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$v3\_membered \ k1\_numbers \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 \ X0) \wedge (v13\_algstr\_0 \ X0) \wedge (v2\_rlvect\_1 \ X0) \wedge (v3\_rlvect\_1 \ X0) \wedge (v4\_rlvect\_1 \ X0) \wedge (v5\_rlvect\_1 \ X0) \wedge \\ & ((v6\_rlvect\_1 \ X0) \wedge (v7\_rlvect\_1 \ X0) \wedge (v8\_rlvect\_1 \ X0) \wedge (l1\_rlvect\_1 \ X0)))))) \Rightarrow (\forall X1. (m1\_subset\_1 \ X1 \ (u1\_struct\_0 \ X0)) \Rightarrow \\ & (\forall X2. (m1\_subset\_1 \ X2 \ (u1\_struct\_0 \ X0)) \Rightarrow (\forall X3. (m1\_subset\_1 \ X3 \ (u1\_struct\_0 \ X0)) \Rightarrow (\forall X4. (m1\_subset\_1 \ X4 \ (u1\_struct\_0 \ X0)) \Rightarrow \\ & (r2\_analmetr \ X0 \ X1 \ X2 \ X3 \ X4) \Leftrightarrow (\exists X5. (m1\_subset\_1 \ X5 \ k1\_numbers) \wedge (\exists X6. (m1\_subset\_1 \ X6 \ k1\_numbers) \wedge (\exists X7. \\ & (m1\_subset\_1 \ X7 \ k1\_numbers) \wedge (\exists X8. (m1\_subset\_1 \ X8 \ k1\_numbers) \wedge \\ & ((X1 = k3\_rlvect\_1 \ X0 \ (k1\_rlvect\_1 \ X0 \ X3 \ X5) \ (k1\_rlvect\_1 \ X0 \ X4 \ X6)) \wedge \\ & ((X2 = k3\_rlvect\_1 \ X0 \ (k1\_rlvect\_1 \ X0 \ X3 \ X7) \ (k1\_rlvect\_1 \ X0 \ X4 \ X8)) \wedge \\ & (k7\_real\_1 \ (k8\_real\_1 \ X5 \ X7) \ (k8\_real\_1 \ X6 \ X8) = k6\_numbers)))))))))) \tag{2} \end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. ((m1\_subset\_1 \ X0 \ k1\_numbers) \wedge (v1\_xreal\_0 \ X1)) \Rightarrow (k8\_real\_1 \ X0 \ X1 = k8\_real\_1 \ X1 \ X0) \tag{3}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow (v1\_xreal\_0\ X1)) \quad (4)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1 \\ & X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v5\_rlvect\_1\ X0)\wedge \\ & ((v6\_rlvect\_1\ X0)\wedge((v7\_rlvect\_1\ X0)\wedge((v8\_rlvect\_1\ X0)\wedge(l1\_rlvect\_1 \\ & X0))))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow \\ & (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1 \\ & X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0 \\ & X0))\Rightarrow((r2\_analmetr\ X0\ X1\ X2\ X3\ X4)\Rightarrow(r2\_analmetr\ X0\ X2\ X1\ X3\ X4)))))) \end{aligned}$$