

# l3\_algstr\_2 (TMdt- NThc5NZ1NwgENJZtkL4MLEcA5HMP9BV)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_vectsp\_1 : \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k8\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k2\_vectsp\_1)) \Rightarrow (\forall X1. \\
& (m1\_subset\_1 X1 (u1\_struct\_0 k2\_vectsp\_1)) \Rightarrow (\forall X2.(m1\_subset\_1 \\
& X2 (u1\_struct\_0 k2\_vectsp\_1)) \Rightarrow ((k3\_rlvect\_1 k2\_vectsp\_1 X0 X1 = \\
& k3\_rlvect\_1 k2\_vectsp\_1 X1 X0) \wedge ((k3\_rlvect\_1 k2\_vectsp\_1 (k3\_rlvect\_1 \\
& k2\_vectsp\_1 X0 X1) X2 = k3\_rlvect\_1 k2\_vectsp\_1 X0 (k3\_rlvect\_1 \\
& k2\_vectsp\_1 X1 X2)) \wedge ((k3\_rlvect\_1 k2\_vectsp\_1 X0 (k4\_struct\_0 \\
& k2\_vectsp\_1) = X0) \wedge ((k3\_rlvect\_1 k2\_vectsp\_1 X0 (k4\_algstr\_0 \\
& k2\_vectsp\_1 X0) = k4\_struct\_0 k2\_vectsp\_1) \wedge ((k8\_group\_1 k2\_vectsp\_1 \\
& X0 X1 = k8\_group\_1 k2\_vectsp\_1 X1 X0) \wedge ((k8\_group\_1 k2\_vectsp\_1 \\
& k8\_group\_1 k2\_vectsp\_1 X0 X1) X2 = k8\_group\_1 k2\_vectsp\_1 X0 (k8\_group\_1 \\
& k2\_vectsp\_1 X1 X2)) \wedge ((k8\_group\_1 k2\_vectsp\_1 (k5\_struct\_0 k2\_vectsp\_1) \\
& X0 = X0) \wedge ((\neg(X0 \neq k4\_struct\_0 k2\_vectsp\_1)) \wedge (\forall X3.(m1\_subset\_1 \\
& X3 (u1\_struct\_0 k2\_vectsp\_1)) \Rightarrow (k8\_group\_1 k2\_vectsp\_1 X3 X0 \neq \\
& k5\_struct\_0 k2\_vectsp\_1))) \wedge ((k8\_group\_1 k2\_vectsp\_1 X0 (k3\_rlvect\_1 \\
& k2\_vectsp\_1 X1 X2) = k3\_rlvect\_1 k2\_vectsp\_1 (k8\_group\_1 k2\_vectsp\_1 \\
& X0 X1) (k8\_group\_1 k2\_vectsp\_1 X0 X2)) \wedge (k8\_group\_1 k2\_vectsp\_1 \\
& (k3\_rlvect\_1 k2\_vectsp\_1 X1 X2) X0 = k3\_rlvect\_1 k2\_vectsp\_1 (k8\_group\_1 \\
& k2\_vectsp\_1 X1 X0) (k8\_group\_1 k2\_vectsp\_1 X2 X0))))))))))))) \\
& \tag{1}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k2\_vectsp\_1)) \Rightarrow (\forall X1. \\
& (m1\_subset\_1 X1 (u1\_struct\_0 k2\_vectsp\_1)) \Rightarrow (\neg(X0 \neq k4\_struct\_0 \\
& k2\_vectsp\_1) \wedge (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 k2\_vectsp\_1)) \Rightarrow \\
& (k8\_group\_1 k2\_vectsp\_1 X0 X2 \neq X1)))) \\
& \tag{2}
\end{aligned}$$

Assume the following.

$$k6\_numbers = k4\_struct\_0 k2\_vectsp\_1 \tag{3}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k2\_vectsp\_1)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 k2\_vectsp\_1)) \Rightarrow (\neg(X0 \neq k4\_struct\_0 \\ & k2\_vectsp\_1) \wedge (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 k2\_vectsp\_1)) \Rightarrow \\ & (k8\_group\_1 k2\_vectsp\_1 X2 X0 \neq X1)))) \end{aligned}$$