t163_zmodul01 (TMJA61nCixXP2DimML9MkQvpCq9GSPXXKiq)

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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 $l2\_algstr\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_numbers : \iota$ be given. Let $k1\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_zmodul01 : \iota \Rightarrow \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge (l2\_algstr\_0\ X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k4\_numbers) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k4\_numbers) \Rightarrow (((X2 = k6\_numbers) \vee (X3 = k6\_numbers)) \Rightarrow (k1\_binop\_1\ (k12\_zmodul01\ X0)\ (k3\_xcmplx\_0\ X2\ X3)\ X1 = k2\_binop\_1\ k4\_numbers\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (k12\_zmodul01\ X0)\ X2\ (k2\_binop\_1\ k4\_numbers\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (k12\_zmodul01\ X0)\ X3\ X1)))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge (l2\_algstr\_0\ X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k4\_numbers) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k4\_numbers) \Rightarrow (\neg(X2 \neq k6\_numbers) \wedge ((X3 \neq k6\_numbers) \wedge (k1\_binop\_1\ (k12\_zmodul01\ X0)\ (k3\_xcmplx\_0\ X2\ X3)\ X1 \neq k2\_binop\_1\ k4\_numbers\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (k12\_zmodul01\ X0)\ X2\ (k2\_binop\_1\ k4\_numbers\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (k12\_zmodul01\ X0)\ X3\ X1))))))) \tag{2}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge(l2\_algstr\_0\ X0))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k4\_numbers)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k4\_numbers)\Rightarrow(k1\_binop\_1\ (k12\_zmodul01\ X0)\ (k3\_xcmplx\_0\ X2\ X3)\ X1 = k2\_binop\_1\ k4\_numbers\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (k12\_zmodul01\ X0)\ X2\ (k2\_binop\_1\ k4\_numbers\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (k12\_zmodul01\ X0)\ X3\ X1)))))$$