t56_fvaluat1 (TMGFpittGEPgYKrVtmySrtR9fXqX5awdyf1)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v6\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $v5\_vectsp\_1 : \iota \Rightarrow o$ 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 $v1\_realset2 : \iota \Rightarrow o$ be given. Let $l6\_algstr\_0 : \iota \Rightarrow o$ be given. Let $m1\_fvaluat1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_fvaluat1 : \iota \Rightarrow o$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k7\_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l2\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l5\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v36\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v5\_group\_1 : \iota \Rightarrow o$ be given. Let $v4\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $u2\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k6\_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_algstr\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2\_algstr\_0 : \iota \Rightarrow \iota$ be given. Let $u3\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k5\_struct\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(l6\_algstr\_0\ X0) \Rightarrow ((l2\_algstr\_0\ X0) \wedge (l5\_algstr\_0\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.(l2\_algstr\_0\ X0) \Rightarrow ((l2\_struct\_0\ X0) \wedge (l1\_algstr\_0\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge ((\neg v6\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v3\_group\_1\ X0) \wedge ((v5\_vectsp\_1\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v1\_realset2\ X0) \wedge (l6\_algstr\_0\ X0))))))))) \wedge (m1\_fvaluat1\ X1\ X0)) \Rightarrow ((\neg v2\_struct\_0\ (k7\_fvaluat1\ X0\ X1)) \wedge ((\neg v6\_struct\_0\ (k7\_fvaluat1\ X0\ X1)) \wedge ((v13\_algstr\_0\ (k7\_fvaluat1\ X0\ X1)) \wedge ((v36\_algstr\_0\ (k7\_fvaluat1\ X0\ X1)) \wedge ((v3\_group\_1\ (k7\_fvaluat1\ X0\ X1)) \wedge ((v5\_group\_1\ (k7\_fvaluat1\ X0\ X1)) \wedge ((v4\_vectsp\_1\ (k7\_fvaluat1\ X0\ X1)) \wedge ((v5\_vectsp\_1\ (k7\_fvaluat1\ X0\ X1)) \wedge ((v2\_rlvect\_1\ (k7\_fvaluat1\ X0\ X1)) \wedge ((v3\_rlvect\_1\ (k7\_fvaluat1\ X0\ X1)) \wedge ((v4\_rlvect\_1\ (k7\_fvaluat1\ X0\ X1)) \wedge (l6\_algstr\_0\ (k7\_fvaluat1\ X0\ X1))))))))))))) \tag{3}$$

Assume the following.

$$\forall X0.(l2\_struct\_0\ X0) \Rightarrow (k4\_struct\_0\ X0 = u2\_struct\_0\ X0) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v6\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v3\_group\_1\ X0) \wedge ((v5\_vectsp\_1\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v1\_realset2\ X0) \wedge (l6\_algstr\_0\ X0))))))))) \Rightarrow (\forall X1.(m1\_fvaluat1\ X1\ X0) \Rightarrow ((v3\_fvaluat1\ X0) \Rightarrow (\forall X2.((\neg v2\_struct\_0\ X2) \wedge ((\neg v6\_struct\_0\ X2) \wedge ((v13\_algstr\_0\ X2) \wedge ((v36\_algstr\_0\ X2) \wedge ((v3\_group\_1\ X2) \wedge ((v5\_group\_1\ X2) \wedge ((v4\_vectsp\_1\ X2) \wedge ((v5\_vectsp\_1\ X2) \wedge ((v2\_rlvect\_1\ X2) \wedge ((v3\_rlvect\_1\ X2) \wedge ((v4\_rlvect\_1\ X2) \wedge (l6\_algstr\_0\ X2))))))))))) \Rightarrow ((X2 = k7\_fvaluat1\ X0\ X1) \Leftrightarrow ((u1\_struct\_0\ X2 = k6\_fvaluat1\ X0\ X1) \wedge ((u1\_algstr\_0\ X2 = k2\_partfun1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\ (u1\_struct\_0\ X0)\ (u1\_algstr\_0\ X0)\ (k2\_zfmisc\_1\ (k6\_fvaluat1\ X0\ X1)\ (k6\_fvaluat1\ X0\ X1))) \wedge ((u2\_algstr\_0\ X2 = k2\_partfun1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\ (u1\_struct\_0\ X0)\ (u2\_algstr\_0\ X0)\ (k2\_zfmisc\_1\ (k6\_fvaluat1\ X0\ X1)\ (k6\_fvaluat1\ X0\ X1))) \wedge ((u2\_struct\_0\ X2 = k4\_struct\_0\ X0) \wedge (u3\_struct\_0\ X2 = k5\_struct\_0\ X0))))))))) \tag{5}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v6\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v3\_group\_1\ X0) \wedge ((v5\_vectsp\_1\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v1\_realset2\ X0) \wedge (l6\_algstr\_0\ X0))))))))) \Rightarrow (\forall X1.(m1\_fvaluat1\ X1\ X0) \Rightarrow ((v3\_fvaluat1\ X0) \Rightarrow (k4\_struct\_0\ (k7\_fvaluat1\ X0\ X1) = k4\_struct\_0\ X0)))$$