t12_parsp_1 (TMQ9H4e6j9tdpguvSi6GwCx9xeToymWCLSW)

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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 $v33\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $v5\_group\_1 : \iota \Rightarrow o$ be given. Let $v4\_vectsp\_1 : \iota \Rightarrow o$ 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 $l6\_algstr\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k9\_parsp\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_parsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be

given. Let $k6\_parsp\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v6\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v33\_algstr\_0\ X0) \wedge ((v3\_group\_1\ X0) \wedge ((v5\_group\_1\ X0) \wedge ((v4\_vectsp\_1\ X0) \wedge ((v5\_vectsp\_1\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge (l6\_algstr\_0\ X0))))))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))) \Rightarrow ((r1\_parsp\_1\ (k9\_parsp\_1\ X0)\ X1\ X2\ X3\ X4) \Leftrightarrow ((k5\_domain\_1\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ X1\ X2\ X3\ X4 \in k6\_parsp\_1\ X0) \wedge (\exists X5.(m1\_subset\_1\ X5\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))) \wedge (\exists X6.(m1\_subset\_1\ X6\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))) \wedge (\exists X7.(m1\_subset\_1\ X7\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))) \wedge (\exists X8.(m1\_subset\_1\ X8\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))) \wedge ((k5\_domain\_1\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ X1\ X2\ X3\ X4 = k5\_domain\_1\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\ X5\ X6\ X7\ X8) \wedge ((k5\_algstr\_0\ X0\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))\ (k5\_algstr\_0\ X0\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8)))\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8))\ (k5\_algstr\_0\ X0\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))) = k4\_struct\_0\ X0) \wedge ((k5\_algstr\_0\ X0\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))\ (k5\_algstr\_0\ X0\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8)))\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8))\ (k5\_algstr\_0\ X0\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))) = k4\_struct\_0\ X0) \wedge (k5\_algstr\_0\ X0\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))\ (k5\_algstr\_0\ X0\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8)))\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8))\ (k5\_algstr\_0\ X0\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))) = k4\_struct\_0\ X0)))))))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((\neg v6\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v33\_algstr\_0\ X0)\wedge((v3\_group\_1\ X0)\wedge((v5\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge(l6\_algstr\_0\ X0))))))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k9\_parsp\_1\ X0)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k9\_parsp\_1\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k9\_parsp\_1\ X0)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k9\_parsp\_1\ X0)))\Rightarrow(k5\_domain\_1\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ X1\ X2\ X3\ X4 \in k6\_parsp\_1\ X0))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((\neg v6\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v33\_algstr\_0\ X0)\wedge((v3\_group\_1\ X0)\wedge((v5\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge(l6\_algstr\_0\ X0))))))))))))\Rightarrow(u1\_struct\_0\ (k9\_parsp\_1\ X0) = k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \tag{3}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((\neg v6\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v33\_algstr\_0\ X0)\wedge((v3\_group\_1\ X0)\wedge((v5\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge(l6\_algstr\_0\ X0))))))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k9\_parsp\_1\ X0)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k9\_parsp\_1\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k9\_parsp\_1\ X0)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k9\_parsp\_1\ X0)))\Rightarrow((r1\_parsp\_1\ (k9\_parsp\_1\ X0)\ X1\ X2\ X3\ X4)\Leftrightarrow(\exists X5.(m1\_subset\_1\ X5\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))\wedge(\exists X6.(m1\_subset\_1\ X6\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))\wedge(\exists X7.(m1\_subset\_1\ X7\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))\wedge(\exists X8.(m1\_subset\_1\ X8\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))\wedge((k5\_domain\_1\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ (u1\_struct\_0\ (k9\_parsp\_1\ X0))\ X1\ X2\ X3\ X4 = k5\_domain\_1\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\ (k3\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\ X5\ X6\ X7\ X8)\wedge((k5\_algstr\_0\ X0\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))\ (k5\_algstr\_0\ X0\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8)))\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8))\ (k5\_algstr\_0\ X0\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))) = k4\_struct\_0\ X0)\wedge((k5\_algstr\_0\ X0\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))\ (k5\_algstr\_0\ X0\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8)))\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k1\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8))\ (k5\_algstr\_0\ X0\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))) = k4\_struct\_0\ X0)\wedge((k5\_algstr\_0\ X0\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))\ (k5\_algstr\_0\ X0\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8)))\ (k8\_group\_1\ X0\ (k5\_algstr\_0\ X0\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X7)\ (k2\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X8))\ (k5\_algstr\_0\ X0\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X5)\ (k3\_mcart\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X6))) = k4\_struct\_0\ X0)))))))))))))$$