t51_parsp_2 (TMTRXSPEfhvvZXwWxF3ABWLnVtPjo7xCK3h)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_parsp\_1 : \iota \Rightarrow o$ be given. Let $v1\_parsp\_2 : \iota \Rightarrow o$ be given. Let $l1\_parsp\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r2\_parsp\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3\_parsp\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_parsp\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_parsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_parsp\_1\ X0) \wedge ((v1\_parsp\_2\ X0) \wedge (l1\_parsp\_1\ X0)))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0)) \Rightarrow (((r1\_parsp\_2\ X0\ X1\ X2\ X3) \wedge (r2\_parsp\_2\ X0\ X1\ X4\ X2\ X5) \wedge (r2\_parsp\_2\ X0\ X1\ X4\ X3\ X6))) \Rightarrow ((X2 = X3) \vee (r2\_parsp\_2\ X0\ X2\ X5\ X3\ X6)))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_parsp\_1\ X0) \wedge ((v1\_parsp\_2\ X0) \wedge (l1\_parsp\_1\ X0)))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\neg(X1 \neq X2) \wedge (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\neg(r1\_parsp\_2\ X0\ X1\ X2\ X3) \wedge ((X3 \neq X1) \wedge (X3 \neq X2))))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_parsp\_1\ X0) \wedge ((v1\_parsp\_2\ X0) \wedge (l1\_parsp\_1\ X0)))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\neg(\neg r1\_parsp\_2\ X0\ X1\ X2\ X3) \wedge (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (\neg r2\_parsp\_2\ X0\ X1\ X2\ X3\ X4)))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_parsp\_1\ X0)\wedge((v1\_parsp\_2\ X0)\wedge(l1\_parsp\_1\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow((r2\_parsp\_2\ X0\ X1\ X2\ X3\ X4)\Rightarrow((r2\_parsp\_2\ X0\ X1\ X3\ X2\ X4)\wedge((r2\_parsp\_2\ X0\ X3\ X4\ X1\ X2)\wedge((r2\_parsp\_2\ X0\ X2\ X1\ X4\ X3)\wedge((r2\_parsp\_2\ X0\ X3\ X1\ X4\ X2)\wedge((r2\_parsp\_2\ X0\ X4\ X2\ X3\ X1)\wedge((r2\_parsp\_2\ X0\ X2\ X4\ X1\ X3)\wedge(r2\_parsp\_2\ X0\ X4\ X3\ X2\ X1)))))))))))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_parsp\_1\ X0)\wedge((v1\_parsp\_2\ X0)\wedge(l1\_parsp\_1\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow((r2\_parsp\_2\ X0\ X1\ X2\ X3\ X4)\Rightarrow((\neg r1\_parsp\_2\ X0\ X1\ X2\ X3)\wedge((\neg r1\_parsp\_2\ X0\ X2\ X1\ X4)\wedge((\neg r1\_parsp\_2\ X0\ X3\ X4\ X1)\wedge((\neg r1\_parsp\_2\ X0\ X4\ X3\ X2)\wedge((\neg r1\_parsp\_2\ X0\ X1\ X3\ X2)\wedge((\neg r1\_parsp\_2\ X0\ X2\ X1\ X3)\wedge((\neg r1\_parsp\_2\ X0\ X2\ X3\ X1)\wedge((\neg r1\_parsp\_2\ X0\ X3\ X1\ X2)\wedge((\neg r1\_parsp\_2\ X0\ X3\ X2\ X1)\wedge((\neg r1\_parsp\_2\ X0\ X2\ X4\ X1)\wedge((\neg r1\_parsp\_2\ X0\ X1\ X2\ X4)\wedge((\neg r1\_parsp\_2\ X0\ X1\ X4\ X2)\wedge((\neg r1\_parsp\_2\ X0\ X4\ X1\ X2)\wedge((\neg r1\_parsp\_2\ X0\ X4\ X2\ X1)\wedge((\neg r1\_parsp\_2\ X0\ X3\ X1\ X4)\wedge((\neg r1\_parsp\_2\ X0\ X1\ X3\ X4)\wedge((\neg r1\_parsp\_2\ X0\ X1\ X4\ X3)\wedge((\neg r1\_parsp\_2\ X0\ X4\ X1\ X3)\wedge((\neg r1\_parsp\_2\ X0\ X4\ X3\ X1)\wedge((\neg r1\_parsp\_2\ X0\ X4\ X2\ X3)\wedge((\neg r1\_parsp\_2\ X0\ X2\ X3\ X4)\wedge((\neg r1\_parsp\_2\ X0\ X2\ X4\ X3)\wedge((\neg r1\_parsp\_2\ X0\ X3\ X2\ X4)\wedge(\neg r1\_parsp\_2\ X0\ X3\ X4\ X2))))))))))))))))))))))))))))) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_parsp\_1\ X0)\wedge((v1\_parsp\_2\ X0)\wedge(l1\_parsp\_1\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow((r2\_parsp\_2\ X0\ X1\ X2\ X3\ X4)\Rightarrow((X1\neq X2)\wedge((X2\neq X3)\wedge((X3\neq X1)\wedge((X1\neq X4)\wedge((X2\neq X4)\wedge(X3\neq X4))))))))))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_parsp\_1\ X0)\wedge(l1\_parsp\_1\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow((\neg(X1\neq X2)\wedge((X3\neq X4)\wedge((\neg(X1=X3)\wedge(X2=X4))\wedge(\neg(X1=X4)\wedge(X2=X3)))))\Rightarrow(r1\_parsp\_1\ X0\ X1\ X2\ X3\ X4)))))) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_parsp\_1\ X0)\wedge((v1\_parsp\_2\ X0)\wedge(l1\_parsp\_1\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow(\neg(\neg r1\_parsp\_2\ X0\ X1\ X2\ X3)\wedge((r1\_parsp\_1\ X0\ X1\ X2\ X4\ X5)\wedge((r1\_parsp\_1\ X0\ X1\ X3\ X4\ X6)\wedge((X4\neq X5)\wedge((X4\neq X6)\wedge(r1\_parsp\_2\ X0\ X4\ X5\ X6)))))))))))) \tag{8}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_parsp\_1\ X0)\wedge((v1\_parsp\_2\ X0)\wedge(l1\_parsp\_1\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow((r3\_parsp\_2\ X0\ X1\ X2\ X3\ X4)\Leftrightarrow(\neg(\neg(X1 = X2)\wedge(X3 = X4))\wedge(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow(\neg(r2\_parsp\_2\ X0\ X5\ X6\ X1\ X2)\wedge(r2\_parsp\_2\ X0\ X5\ X6\ X3\ X4)))))))))) \tag{9}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_parsp\_1\ X0)\wedge((v1\_parsp\_2\ X0)\wedge(l1\_parsp\_1\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r1\_parsp\_2\ X0\ X1\ X2\ X3)\Leftrightarrow(r1\_parsp\_1\ X0\ X1\ X2\ X1\ X3))))) \tag{10}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_parsp\_1\ X0)\wedge((v1\_parsp\_2\ X0)\wedge(l1\_parsp\_1\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow((r2\_parsp\_2\ X0\ X1\ X2\ X3\ X4)\Rightarrow(r3\_parsp\_2\ X0\ X1\ X2\ X3\ X4))))))$$