

# t11\_parsp\_2 (TM- ciViYH5NBZG7MoijWvveWCz6LocgMErD5)

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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  $r1\_parsp\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_parsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_parsp\_1 X0) \wedge (l1\_parsp\_1 \\
& X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\
& (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\
& (u1\_struct\_0 X0)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 (u1\_struct\_0 X0)) \Rightarrow \\
& (\forall X5.(m1\_subset\_1 X5 (u1\_struct\_0 X0)) \Rightarrow (\forall X6.(m1\_subset\_1 \\
& X6 (u1\_struct\_0 X0)) \Rightarrow (\forall X7.(m1\_subset\_1 X7 (u1\_struct\_0 \\
& X0)) \Rightarrow (\forall X8.(m1\_subset\_1 X8 (u1\_struct\_0 X0)) \Rightarrow (\neg(\neg r1\_parsp\_1 \\
& X0 X1 X2 X3 X4) \wedge ((r1\_parsp\_1 X0 X1 X2 X5 X6) \wedge ((r1\_parsp\_1 X0 X3 X4 X7 \\
& X8) \wedge ((X5 \neq X6) \wedge ((X7 \neq X8) \wedge (r1\_parsp\_1 X0 X5 X6 X7 X8))))))))))))) \\
& \tag{1}
\end{aligned}$$

Assume the following.

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

**Theorem 1**

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