

# t55\_scmfsa\_2 (TMLNEekPhbgvMRRL- gWSU7Cr1cWNq5x1q12q)

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Let  $v1\_ami\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_ami\_3 : \iota$  be given. Let  $k1\_scmfsa\_2 : \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v5\_funct\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_3 : \iota$  be given. Let  $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_ami\_2 : \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 (u1\_struct\_0 k1\_ami\_3)) \wedge \\ & ((v1\_funct\_1 X0) \wedge ((v5\_funct\_1 X0 (k2\_memstr\_0 np\_2 k1\_ami\_3)) \wedge \\ & (v1\_partfun1 X0 (u1\_struct\_0 k1\_ami\_3)))))) \Rightarrow (\forall X1.((v1\_ami\_2 \\ & X1) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 k1\_ami\_3))) \Rightarrow (X1 \in k9\_xtuple\_0 \\ & X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1\_relat\_1 X2) \wedge (v1\_funct\_1 \\ & X2)) \Rightarrow ((X0 \in k9\_xtuple\_0 (k5\_relat\_1 X2 X1)) \Rightarrow (k1\_funct\_1 (k5\_relat\_1 \\ & X2 X1) X0 = k1\_funct\_1 X2 X0)) \end{aligned} \quad (2)$$

## Theorem 1

$$\begin{aligned} & \forall X0. ((v1\_ami\_2 X0) \wedge (m1\_subset\_1 X0 (u1\_struct\_0 k1\_ami\_3))) \Rightarrow \\ & (\forall X1. ((v1\_ami\_2 X1) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 k1\_scmfsa\_2))) \Rightarrow \\ & (\forall X2. ((v1\_relat\_1 X2) \wedge ((v4\_relat\_1 X2 (u1\_struct\_0 k1\_ami\_3)) \wedge \\ & ((v1\_funct\_1 X2) \wedge ((v5\_funct\_1 X2 (k2\_memstr\_0 np\_2 k1\_ami\_3)) \wedge \\ & (v1\_partfun1 X2 (u1\_struct\_0 k1\_ami\_3)))))) \Rightarrow (\forall X3. ((v1\_relat\_1 \\ & X3) \wedge ((v4\_relat\_1 X3 (u1\_struct\_0 k1\_scmfsa\_2)) \wedge ((v1\_funct\_1 \\ & X3) \wedge ((v5\_funct\_1 X3 (k2\_memstr\_0 np\_3 k1\_scmfsa\_2)) \wedge (v1\_partfun1 \\ & X3 (u1\_struct\_0 k1\_scmfsa\_2)))))) \Rightarrow (((X2 = k5\_relat\_1 X3 k1\_ami\_2) \wedge \\ & (X0 = X1)) \Rightarrow (k1\_funct\_1 X2 X0 = k1\_funct\_1 X3 X1)))))) \end{aligned}$$