

t41\_twoscomp (TM-  
czZ6xdPpQbbU2WdFs6bVKdQ7dT4HRbc9U)

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Let  $v1\_xtuple\_0 : \iota \Rightarrow o$  be given. Let  $k2\_msafree2 : \iota \Rightarrow \iota$  be given. Let  $k40\_twoscomp : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_tarSKI : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(\neg v1\_xtuple\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xtuple\_0 X1) \Rightarrow (k2\_msafree2 (k40\_twoscomp X0 X1) = k2\_tarSKI X0 X1)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_tarSKI X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \quad (2)$$

**Theorem 1**

$$\forall X0.(\neg v1\_xtuple\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xtuple\_0 X1) \Rightarrow ((X0 \in k2\_msafree2 (k40\_twoscomp X0 X1)) \wedge (X1 \in k2\_msafree2 (k40\_twoscomp X0 X1))))$$