t24_ftacell1 (TMJW1rjY2DqEUEZsTNG18NoadWhnLFY7Qos)

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Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k13\_ftacell1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_gfacirc1 : \iota$ be given. Let $k36\_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_twoscomp : \iota$ be given. Let $k3\_gfacirc1 : \iota$ be given. Let $k4\_twoscomp : \iota$ be given. Let $k33\_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k24\_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_twoscomp : \iota$ be given. Let $k21\_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25\_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25\_twoscomp : \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_msualg\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_circcomb : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k37\_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k29\_twoscomp : \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $k6\_margrel1 : \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v11\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_msualg\_1 : \iota \Rightarrow o$ be given. Let $v1\_circcomb : \iota \Rightarrow o$ be given. Let $v2\_circcomb : \iota \Rightarrow o$ be given. Let $v3\_circcomb : \iota \Rightarrow o$ be given. Let $k9\_facirc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(X0 \in u1\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2)) \wedge ((X1 \in u1\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2)) \wedge ((X2 \in u1\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2)) \wedge ((k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k4\_gfacirc1 \in u1\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2)) \wedge ((k4\_tarski\ (k10\_finseq\_1\ (k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k4\_gfacirc1)\ X2)\ k4\_gfacirc1 \in u1\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2)) \wedge ((k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k3\_gfacirc1 \in u1\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2)) \wedge ((k4\_tarski\ (k10\_finseq\_1\ X1\ X2)\ k3\_twoscomp \in u1\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2)) \wedge ((k4\_tarski\ (k10\_finseq\_1\ X2\ X0)\ k2\_twoscomp \in u1\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2)) \wedge (k4\_tarski\ (k11\_finseq\_1\ (k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k3\_gfacirc1)\ (k4\_tarski\ (k10\_finseq\_1\ X1\ X2)\ k3\_twoscomp)\ (k4\_tarski\ (k10\_finseq\_1\ X2\ X0)\ k2\_twoscomp))\ k25\_twoscomp \in u1\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_msualg\_1\ X0))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l1\_msualg\_1\ X1))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((X2\in u1\_struct\_0\ (k2\_circcomb\ X0\ X1))\wedge(X2\in u1\_struct\_0\ (k2\_circcomb\ X1\ X0))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(X0\in X1)\Rightarrow(m1\_subset\_1\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X0\in u1\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((X1\in u1\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((X2\in u1\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k4\_gfacirc1\in u1\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((k4\_tarski\ (k10\_finseq\_1\ (k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k4\_gfacirc1)\ X2)\ k4\_gfacirc1\in u1\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k3\_twoscomp\in u1\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((k4\_tarski\ (k10\_finseq\_1\ X1\ X2)\ k3\_gfacirc1\in u1\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((k4\_tarski\ (k10\_finseq\_1\ X2\ X0)\ k4\_twoscomp\in u1\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge(k4\_tarski\ (k11\_finseq\_1\ (k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k3\_twoscomp)\ (k4\_tarski\ (k10\_finseq\_1\ X1\ X2)\ k3\_gfacirc1)\ (k4\_tarski\ (k10\_finseq\_1\ X2\ X0)\ k4\_twoscomp))\ k29\_twoscomp\in u1\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2)))))))))) \tag{4}$$

Assume the following.

$$(v1\_funct\_1\ k4\_gfacirc1)\wedge((v1\_funct\_2\ k4\_gfacirc1\ (k4\_finseq\_2\ np\_\_2\ k6\_margrel1)\ k6\_margrel1)\wedge(m1\_subset\_1\ k4\_gfacirc1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k4\_finseq\_2\ np\_\_2\ k6\_margrel1)\ k6\_margrel1)))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(\neg v2\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((\neg v11\_struct\_0\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((v1\_msualg\_1\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((v1\_circcomb\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((v2\_circcomb\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge((v3\_circcomb\ (k37\_gfacirc1\ X0\ X1\ X2))\wedge(l1\_msualg\_1\ (k37\_gfacirc1\ X0\ X1\ X2))))))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(\neg v2\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2))\wedge((\neg v11\_struct\_0\ (k25\_gfacirc1\ X0\ X1\ X2))\wedge((v1\_msualg\_1\ (k25\_gfacirc1\ X0\ X1\ X2))\wedge((v1\_circcomb\ (k25\_gfacirc1\ X0\ X1\ X2))\wedge((v2\_circcomb\ (k25\_gfacirc1\ X0\ X1\ X2))\wedge((v3\_circcomb\ (k25\_gfacirc1\ X0\ X1\ X2))\wedge(l1\_msualg\_1\ (k25\_gfacirc1\ X0\ X1\ X2))))))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k36\_gfacirc1\ X0\ X1\ X2 = k9\_facirc\_1\ X0\ X1\ X2\ k4\_gfacirc1 \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k33\_gfacirc1\ X0\ X1\ X2 = k4\_tarski\ (k11\_finseq\_1\ (k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k3\_twoscomp)\ (k4\_tarski\ (k10\_finseq\_1\ X1\ X2)\ k3\_gfacirc1)\ (k4\_tarski\ (k10\_finseq\_1\ X2\ X0)\ k4\_twoscomp))\ k29\_twoscomp \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k24\_gfacirc1\ X0\ X1\ X2 = k9\_facirc\_1\ X0\ X1\ X2\ k4\_gfacirc1 \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k21\_gfacirc1\ X0\ X1\ X2 = k4\_tarski\ (k11\_finseq\_1\ (k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k3\_gfacirc1)\ (k4\_tarski\ (k10\_finseq\_1\ X1\ X2)\ k3\_twoscomp)\ (k4\_tarski\ (k10\_finseq\_1\ X2\ X0)\ k2\_twoscomp))\ k25\_twoscomp \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.k13\_ftacell1\ X0\ X1\ X2\ X3\ X4 = k2\_circcomb\ (k37\_gfacirc1\ X0\ X1\ X2)\ (k25\_gfacirc1\ (k36\_gfacirc1\ X0\ X1\ X2)\ X4\ X3) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (k4\_finseq\_2\ np\_\_2\ k6\_margrel1)\ k6\_margrel1)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k4\_finseq\_2\ np\_\_2\ k6\_margrel1)\ k6\_margrel1)))))\Rightarrow(k9\_facirc\_1\ X0\ X1\ X2\ X3 = k4\_tarski\ (k10\_finseq\_1\ (k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ X3)\ X2)\ X3) \tag{13}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(X0 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((X1 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((X2 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((X3 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((X4 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k4\_gfacirc1 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k36\_gfacirc1\ X0\ X1\ X2 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k4\_tarski\ (k10\_finseq\_1\ X0\ X1)\ k3\_twoscomp \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k4\_tarski\ (k10\_finseq\_1\ X1\ X2)\ k3\_gfacirc1 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k4\_tarski\ (k10\_finseq\_1\ X2\ X0)\ k4\_twoscomp \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k33\_gfacirc1\ X0\ X1\ X2 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k4\_tarski\ (k10\_finseq\_1\ (k36\_gfacirc1\ X0\ X1\ X2)\ X4)\ k4\_gfacirc1 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k24\_gfacirc1\ (k36\_gfacirc1\ X0\ X1\ X2)\ X4\ X3 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k4\_tarski\ (k10\_finseq\_1\ (k36\_gfacirc1\ X0\ X1\ X2)\ X4)\ k3\_gfacirc1 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k4\_tarski\ (k10\_finseq\_1\ X4\ X3)\ k3\_twoscomp \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge((k4\_tarski\ (k10\_finseq\_1\ X3\ (k36\_gfacirc1\ X0\ X1\ X2))\ k2\_twoscomp \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))\wedge(k21\_gfacirc1\ (k36\_gfacirc1\ X0\ X1\ X2)\ X4\ X3 \in u1\_struct\_0\ (k13\_ftacell1\ X0\ X1\ X2\ X3\ X4))))))))))))))))$$