t24_yellow_6 (TMbdLDEgbnbKCPuyNDuzUbfjirddYShjMQo)

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Let $l1\_struct\_0 : \iota \Rightarrow o$ 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 $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m3\_yellow\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_orders\_2 : \iota \Rightarrow o$ be given. Let $v7\_waybel\_0 : \iota \Rightarrow o$ be given. Let $l1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge (v4\_relat\_1\ X1\ X0)) \Rightarrow (k1\_relset\_1\ X0\ X1 = k9\_xtuple\_0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(l1\_struct\_0\ X1) \Rightarrow (\forall X2.(m3\_yellow\_6\ X2\ X0\ X1) \Rightarrow ((v1\_relat\_1\ X2) \wedge ((v4\_relat\_1\ X2\ X0) \wedge ((v1\_funct\_1\ X2) \wedge (v1\_partfun1\ X2\ X0))))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.(X1 = k10\_xtuple\_0\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9\_xtuple\_0\ X0) \wedge (X2 = k1\_funct\_1\ X0\ X3))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge (v4\_relat\_1\ X1\ X0)) \Rightarrow ((v1\_partfun1\ X1\ X0) \Leftrightarrow (k1\_relset\_1\ X0\ X1 = X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(l1\_struct\_0\ X1) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge ((v4\_relat\_1\ X2\ X0) \wedge ((v1\_funct\_1\ X2) \wedge (v1\_partfun1\ X2\ X0)))) \Rightarrow ((m3\_yellow\_6\ X2\ X0\ X1) \Leftrightarrow (\forall X3.(X3 \in k10\_xtuple\_0\ X2) \Rightarrow ((\neg v2\_struct\_0\ X3) \wedge ((v4\_orders\_2\ X3) \wedge ((v7\_waybel\_0\ X3) \wedge (l1\_waybel\_0\ X3\ X1))))))) \tag{5}$$

Theorem 1

$$\forall X0.\forall X1.(l1\_struct\_0\ X1)\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ X0)\wedge((v1\_funct\_1\ X2)\wedge(v1\_partfun1\ X2\ X0))))\Rightarrow((m3\_yellow\_6\ X2\ X0\ X1)\Leftrightarrow(\forall X3.(X3\in X0)\Rightarrow((\neg v2\_struct\_0\ (k1\_funct\_1\ X2\ X3))\wedge((v4\_orders\_2\ (k1\_funct\_1\ X2\ X3))\wedge((v7\_waybel\_0\ (k1\_funct\_1\ X2\ X3))\wedge(l1\_waybel\_0\ (k1\_funct\_1\ X2\ X3)\ X1)))))))$$