t42_waybel20 (TMYeQ9B8eYy1D9CELe4E5LVQhJPEFmfqhPa)

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Let $v3\_orders\_2 : \iota \Rightarrow o$ be given. Let $v4\_orders\_2 : \iota \Rightarrow o$ be given. Let $v5\_orders\_2 : \iota \Rightarrow o$ be given. Let $v1\_lattice3 : \iota \Rightarrow o$ be given. Let $v2\_lattice3 : \iota \Rightarrow o$ be given. Let $v3\_lattice3 : \iota \Rightarrow o$ be given. Let $v3\_waybel\_3 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_yellow\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_waybel20 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_waybel20 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_waybel20 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v22\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_waybel20 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_partfun1 : \iota \Rightarrow \iota$ 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 $v8\_waybel\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge (l1\_orders\_2\ X0)))))))) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X0))))) \Rightarrow ((v1\_waybel20\ X1\ X0) \Rightarrow ((v22\_waybel\_0\ (k3\_waybel20\ X0\ X1)\ X0\ X0) \wedge (X1 = k8\_relset\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X0))\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X0))\ (k1\_waybel20\ X0\ X0\ X0\ X0\ (k3\_waybel20\ X0\ X1)\ (k3\_waybel20\ X0\ X1))\ (k6\_partfun1\ (u1\_struct\_0\ X0))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge (l1\_orders\_2\ X0)))))))) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X0)))))) \Rightarrow ((v1\_funct\_1\ (k3\_waybel20\ X0\ X1)) \wedge ((v1\_funct\_2\ (k3\_waybel20\ X0\ X1)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \wedge ((v8\_waybel\_1\ (k3\_waybel20\ X0\ X1)\ X0) \wedge (m1\_subset\_1\ (k3\_waybel20\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge((v8\_waybel\_1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))))))\Rightarrow(k4\_waybel20\ X0\ X1 = k8\_relset\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X0))\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X0))\ (k1\_waybel20\ X0\ X0\ X0\ X0\ X1\ X1)\ (k6\_partfun1\ (u1\_struct\_0\ X0))))) \tag{3}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v1\_lattice3\ X0)\Rightarrow(\neg v2\_struct\_0\ X0)) \tag{4}$$

Theorem 1

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge((v3\_waybel\_3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k3\_yellow\_3\ X0\ X0)))))\Rightarrow((v1\_waybel20\ X1\ X0)\Rightarrow(X1 = k4\_waybel20\ X0\ (k3\_waybel20\ X0\ X1))))$$