

# t26\_robbins4 (TMbHmdMeSujUC- zoEhpg6pHe7eJd6mcEwpYE)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_robbins4 : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k3\_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $r3\_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v6\_lattices : \iota \Rightarrow o$  be given. Let  $v8\_lattices : \iota \Rightarrow o$  be given. Let  $v9\_lattices : \iota \Rightarrow o$  be given. Let  $l3\_lattices : \iota \Rightarrow o$  be given. Let  $r1\_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_lattices : \iota \Rightarrow o$  be given. Let  $l2\_lattices : \iota \Rightarrow o$  be given. Let  $k1\_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v10\_lattices : \iota \Rightarrow o$  be given. Let  $v4\_robbins1 : \iota \Rightarrow o$  be given. Let  $l4\_robbins1 : \iota \Rightarrow o$  be given. Let  $l2\_robbins1 : \iota \Rightarrow o$  be given. Let  $l1\_lattices : \iota \Rightarrow o$  be given. Let  $v5\_lattices : \iota \Rightarrow o$  be given. Let  $v7\_lattices : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. r1\_tarski\ k1\_xboole\_0\ X0 \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1\_subset\_1\ X0\ (u1\_struct\_0\ k2\_robbins4)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1\ X1\ (u1\_struct\_0\ k2\_robbins4)) \Rightarrow ((r3\_lattices\ k2\_robbins4 \\ & X0\ X1) \Leftrightarrow (r1\_tarski\ X0\ X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0\ X0) \wedge ((v6\_lattices \\ & X0) \wedge ((v8\_lattices\ X0) \wedge ((v9\_lattices\ X0) \wedge (l3\_lattices\ X0)))) \wedge \\ & ((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \wedge (m1\_subset\_1\ X2\ (u1\_struct\_0 \\ & X0)))) \Rightarrow ((r3\_lattices\ X0\ X1\ X2) \Leftrightarrow (r1\_lattices\ X0\ X1\ X2)) \end{aligned} \tag{3}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0)\wedge(v4\_lattices X0)\wedge(l2\_lattices X0))\wedge((m1\_subset\_1 X1 (u1\_struct\_0 X0))\wedge(m1\_subset\_1 X2 (u1\_struct\_0 X0))))\Rightarrow(k3\_lattices X0 X1 X2 = k1\_lattices X0 X1 X2)$$
(5)

Assume the following.

$$(v10\_lattices k2\_robbins4)\wedge(v4\_robbins1 k2\_robbins4)$$
(6)

Assume the following.

$$(\neg v2\_struct\_0 k2\_robbins4)\wedge(v4\_robbins1 k2\_robbins4)$$
(7)

Assume the following.

$$\forall X0.(l4\_robbins1 X0)\Rightarrow((l2\_robbins1 X0)\wedge(l3\_lattices X0))$$
(8)

Assume the following.

$$\forall X0.(l3\_lattices X0)\Rightarrow((l1\_lattices X0)\wedge(l2\_lattices X0))$$
(9)

Assume the following.

$$(v4\_robbins1 k2\_robbins4)\wedge(l4\_robbins1 k2\_robbins4)$$
(10)

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge(l2\_lattices X0))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0))\Rightarrow(\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0))\Rightarrow((r1\_lattices X0 X1 X2)\Leftrightarrow(k1\_lattices X0 X1 X2 = X2))))$$
(11)

Assume the following.

$$\forall X0.(l3\_lattices X0)\Rightarrow(((\neg v2\_struct\_0 X0)\wedge(v10\_lattices X0))\Rightarrow((\neg v2\_struct\_0 X0)\wedge((v4\_lattices X0)\wedge((v5\_lattices X0)\wedge((v6\_lattices X0)\wedge((v7\_lattices X0)\wedge((v8\_lattices X0)\wedge(v9\_lattices X0))))))))$$
(12)

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k2\_robbins4))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 k2\_robbins4))\Rightarrow((X0 = k6\_numbers)\Rightarrow(k3\_lattices k2\_robbins4 X0 X1 = X1)))$$