

t40_robbins2 (TMSyTyMXGfJMbFMeNKAeoN- RUcd275ENS65T)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_robbins2 : \iota \Rightarrow o$ be given. Let $l2_robbins1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $l1_robbins1 : \iota \Rightarrow o$ be given. Let $v4_lattices : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v1_robbins2 X0) \wedge (l2_robbins1 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (k5_robbins1 X0 X1 (k3_robbins1 X0 (k5_robbins1 \\ & X0 (k3_robbins1 X0 (k5_robbins1 X0 X2 X3)) (k3_robbins1 X0 (k5_robbins1 \\ & X0 X2 X1)))) = k5_robbins1 X0 X2 X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v1_robbins2 X0) \wedge (l2_robbins1 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (k5_robbins1 X0 (k3_robbins1 \\ & X0 (k5_robbins1 X0 (k3_robbins1 X0 (k5_robbins1 X0 X1 X2)) X1)) X2 = \\ & X2))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(l2_robbins1 X0) \Rightarrow ((l2_lattices X0) \wedge (l1_robbins1 X0)) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0) \wedge ((v4_lattices \\ & X0) \wedge (l2_robbins1 X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge \\ & m1_subset_1 X2 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k5_robbins1 \\ & X0 X1 X2) (u1_struct_0 X0)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge (l1_robbins1 X0)) \wedge \\ & (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k3_robbins1 \\ & X0 X1) (u1_struct_0 X0)) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge(v4_lattices \\ X0)\wedge(l2_robbins1 X0))\wedge((m1_subset_1 X1 (u1_struct_0 X0))\wedge(\\ m1_subset_1 X2 (u1_struct_0 X0))))\Rightarrow(k5_robbins1 X0 X1 X2 = k5_robbins1 \\ X0 X2 X1) \end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned} \forall X0.(l2_robbins1 X0)\Rightarrow(((\neg v2_struct_0 X0)\wedge(v1_robbins2 \\ X0))\Rightarrow((\neg v2_struct_0 X0)\wedge(v4_lattices X0))) \end{aligned} \tag{7}$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v1_robbins2 X0)\wedge(l2_robbins1 \\ X0)))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2. \\ (m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(\forall X3.(m1_subset_1 X3 \\ (u1_struct_0 X0))\Rightarrow(k5_robbins1 X0 (k3_robbins1 X0 (k5_robbins1 \\ X0 (k3_robbins1 X0 (k5_robbins1 X0 X1 X2)) (k3_robbins1 X0 (k5_robbins1 \\ X0 (k3_robbins1 X0 (k5_robbins1 X0 X1 X2)) (k3_robbins1 X0 (k5_robbins1 \\ X0 X1 X3)))))) X2 = X2)))) \end{aligned}$$