

t33_robbins2 (TMPu- FLFhs985KCLxr1T9nVyAXZVQhgbkGbc)

October 27, 2020

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.

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

Assume the following.

$$\forall X0.(l2_robbins1 X0) \Rightarrow ((l2_lattices X0) \wedge (l1_robbins1 X0)) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge (l1_robbins1 X0)) \wedge \\ & (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k3_robbins1 \\ & X0 X1) (u1_struct_0 X0)) \end{aligned} \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0.(l2_robbins1 X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge (v1_robbins2 X0)) \Rightarrow ((\neg v2_struct_0 X0) \wedge (v4_lattices X0))) \quad (5)$$

Theorem 1

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