

t1_robbins2 (TM- RAvJwYQ6JZsBWPJN9FLQMwC8uL195Qx3c)

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 $k3_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $l1_robbins1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \exists X1. m1_subset_1 X1 X0 \quad (1)$$

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.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge (l2_lattices \\ & X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 \\ & X0)))) \Rightarrow (m1_subset_1 (k1_lattices X0 X1 X2) (u1_struct_0 X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. (((\neg v2_struct_0 X0) \wedge (l2_robbins1 X0)) \Rightarrow ((v1_robbins2 \\ & X0) \Leftrightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\ & (k3_robbins1 X0 (k1_lattices X0 X1 X2)) X3)) (k3_robbins1 X0 (k1_lattices \\ & X0 X1 (k3_robbins1 X0 (k1_lattices X0 X3 X4)))))) = X3)))))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v1_robbins2 X0) \wedge (l2_robbins1 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (k3_robbins1 X0 \\ & (k1_lattices X0 (k3_robbins1 X0 (k1_lattices X0 X1 X2)) (k3_robbins1 \\ & X0 (k1_lattices X0 (k3_robbins1 X0 (k1_lattices X0 (k3_robbins1 \\ & X0 (k1_lattices X0 X3 X4)) X1)) (k3_robbins1 X0 (k1_lattices X0 (\\ & k3_robbins1 X0 X2) (k3_robbins1 X0 (k1_lattices X0 X2 X5))))))) = \\ & X2)))))) \end{aligned}$$