

t21_robins4
(TMHVrQTv3PK7fLfNd7RgBSBU8t1aMj8Y42z)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_robins4 : \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_yellow_1 : \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $k1_yellow_1 : \iota \Rightarrow \iota$ be given. Let $k1_robins4 : \iota$ be given. Let $k13_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Assume the following.

$$\forall X0.(u1_struct_0 (k2_yellow_1 X0) = X0) \wedge (u1_orders_2 (k2_yellow_1 X0) = k1_yellow_1 X0) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_robins4)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 k1_robins4)) \Rightarrow (((X0 = k6_subset_1 \\ & np_3 np_1) \wedge (X1 = np_1)) \Rightarrow ((k13_lattice3 k1_robins4 X0 X1 = np_3) \wedge \\ & (k12_lattice3 k1_robins4 X0 X1 = k6_numbers)))) \quad (3) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 k1_robins4)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 k1_robins4)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 k2_robins4)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ & k2_robins4)) \Rightarrow (((X0 = X2) \wedge (X1 = X3)) \Rightarrow ((k13_lattice3 k1_robins4 \\ & X0 X1 = k3_lattices k2_robins4 X2 X3) \wedge (k12_lattice3 k1_robins4 \\ & X0 X1 = k4_lattices k2_robins4 X2 X3)))))) \quad (4) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & \forall X6. (X6 = k4_enumset1\ X0\ X1\ X2\ X3\ X4\ X5) \Leftrightarrow (\forall X7. (X7 \in X6) \Leftrightarrow \\ & (\neg(X7 \neq X0) \wedge ((X7 \neq X1) \wedge ((X7 \neq X2) \wedge ((X7 \neq X3) \wedge ((X7 \neq X4) \wedge (X7 \neq X5))))))) \end{aligned} \quad (5)$$

Assume the following.

$$k1_robbins4 = k2_yellow_1\ (k4_enumset1\ k6_numbers\ np_1\ (k6_subset_1\ np_3\ np_1)\ np_2\ (k6_subset_1\ np_3\ np_2)\ np_3) \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0. (m1_subset_1\ X0\ (u1_struct_0\ k2_robbins4)) \Rightarrow (\forall X1. \\ & (m1_subset_1\ X1\ (u1_struct_0\ k2_robbins4)) \Rightarrow (((X0 = k6_subset_1\ np_3\ np_1) \wedge (X1 = np_1)) \Rightarrow (k3_lattices\ k2_robbins4\ X0\ X1 = np_3))) \end{aligned}$$