

## t13\_robins2

(TMNV5KNX62rekkSFDERYbADTiJhxhTvbZVh)

October 27, 2020

Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_robins2 : \iota \Rightarrow o$  be given. Let  $l2\_robins1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_robins1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l2\_lattices : \iota \Rightarrow o$  be given. Let  $l1\_robins1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v1\_robins2 X0) \wedge (l2\_robins1 \\ & X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 \\ & (u1\_struct\_0 X0)) \Rightarrow (\forall X4. (m1\_subset\_1 X4 (u1\_struct\_0 X0)) \Rightarrow \\ & (k3\_robins1 X0 (k1\_lattices X0 (k3\_robins1 X0 (k1\_lattices X0 \\ & X1 X2)) (k3\_robins1 X0 (k1\_lattices X0 (k3\_robins1 X0 (k1\_lattices \\ & X0 X3 X1)) (k3\_robins1 X0 (k1\_lattices X0 (k3\_robins1 X0 X2) (k3\_robins1 \\ & X0 (k1\_lattices X0 X2 X4)))))) = X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v1\_robins2 X0) \wedge (l2\_robins1 \\ & X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 \\ & (u1\_struct\_0 X0)) \Rightarrow (k3\_robins1 X0 (k1\_lattices X0 X1 (k3\_robins1 \\ & X0 (k1\_lattices X0 (k3\_robins1 X0 (k1\_lattices X0 X2 X3)) (k3\_robins1 \\ & X0 (k1\_lattices X0 X2 X1)))))) = k3\_robins1 X0 (k1\_lattices X0 X2 \\ & X1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. (l2\_robins1 X0) \Rightarrow ((l2\_lattices X0) \wedge (l1\_robins1 X0)) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge (l1\_robins1 X0)) \wedge \\ & (m1\_subset\_1 X1 (u1\_struct\_0 X0))) \Rightarrow (m1\_subset\_1 (k3\_robins1 \\ & X0 X1) (u1\_struct\_0 X0)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge (l2\_lattices \\ & X0)) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (u1\_struct\_0 \\ & X0)))) \Rightarrow (m1\_subset\_1 (k1\_lattices X0 X1 X2) (u1\_struct\_0 X0)) \end{aligned} \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v1\_robbins2 X0) \wedge (l2\_robbins1 \\ & X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 \\ & (u1\_struct\_0 X0)) \Rightarrow (\forall X4. (m1\_subset\_1 X4 (u1\_struct\_0 X0)) \Rightarrow \\ & (k3\_robbins1 X0 (k1\_lattices X0 (k3\_robbins1 X0 (k1\_lattices X0 \\ & X1 X2)) (k3\_robbins1 X0 (k1\_lattices X0 (k3\_robbins1 X0 (k1\_lattices \\ & X0 X3 X1)) (k3\_robbins1 X0 (k1\_lattices X0 (k3\_robbins1 X0 X2) (k3\_robbins1 \\ & X0 (k1\_lattices X0 X4 X2)))))))) = X2)))))) \end{aligned}$$