

t19\_robins1 (TMNPihPT-  
VaDyZo99U2ZnM9C4KbnHAeGaCY4)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v4\_lattices : \iota \Rightarrow o$  be given. Let  $v5\_lattices : \iota \Rightarrow o$  be given. Let  $v6\_robins1 : \iota \Rightarrow o$  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  $k5\_robins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_lattices : \iota \Rightarrow \iota$  be given. Let  $v7\_robins1 : \iota \Rightarrow o$  be given. Let  $k3\_robins1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices X0) \wedge ((v5\_lattices \\ & X0) \wedge ((v6\_robins1 X0) \wedge ((v7\_robins1 X0) \wedge (l2\_robins1 X0)))))) \Rightarrow \\ & (\exists X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (\forall X2.(m1\_subset\_1 \\ & X2 (u1\_struct\_0 X0)) \Rightarrow ((k5\_robins1 X0 X1 X2 = X1) \wedge (k5\_robins1 \\ & X0 X2 (k3\_robins1 X0 X2) = X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \exists X1. m1\_subset\_1 X1 X0 \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices X0) \wedge ((v5\_lattices \\ & X0) \wedge ((v6\_robins1 X0) \wedge ((v7\_robins1 X0) \wedge (l2\_robins1 X0)))))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow ((X1 = k6\_lattices \\ & X0) \Leftrightarrow (\exists X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \wedge (X1 = k5\_robins1 \\ & X0 X2 (k3\_robins1 X0 X2)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices \\ & X0) \wedge (l2\_robins1 X0))) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge \\ & m1\_subset\_1 X2 (u1\_struct\_0 X0))) \Rightarrow (k5\_robins1 X0 X1 X2 = k5\_robins1 \\ & X0 X2 X1) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l2\_robins1 X0) \Rightarrow (((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices \\ & X0) \wedge ((v5\_lattices X0) \wedge (v6\_robins1 X0)))) \Rightarrow ((\neg v2\_struct\_0 X0) \wedge \\ & (v7\_robins1 X0))) \end{aligned} \tag{5}$$

**Theorem 1**

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices X0) \wedge ((v5\_lattices X0) \wedge ((v6\_robbins1 X0) \wedge (l2\_robbins1 X0))))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (k5\_robbins1 X0 X1 (k6\_lattices X0) = k6\_lattices X0))$$