

t47\_robins1  
(TMN4AtprJ4BoiBrvG8ZWDQcbBaVZK1yetk)

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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  $v5\_robins1 : \iota \Rightarrow o$  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  $k9\_robins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_robins1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l2\_lattices : \iota \Rightarrow o$  be given. Let  $l1\_robins1 : \iota \Rightarrow o$  be given. Let  $k1\_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(l2\_robins1 X0) \Rightarrow ((l2\_lattices X0) \wedge (l1\_robins1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0 X0) \wedge (l1\_robins1 X0)) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 X0))) \Rightarrow (m1\_subset\_1 (k3\_robins1 X0 X1) (u1\_struct\_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge (l2\_lattices X0)) \Rightarrow ((v4\_lattices X0) \Leftrightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (k1\_lattices X0 X1 X2 = k1\_lattices X0 X2 X1)))) \quad (3)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge (l2\_robins1 X0)) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (k9\_robins1 X0 X1 X2 = k3\_robins1 X0 (k1\_lattices X0 (k3\_robins1 X0 X1) X2)))) \quad (4)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices X0) \wedge ((v5\_lattices X0) \wedge ((v5\_robins1 X0) \wedge (l2\_robins1 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (k9\_robins1 X0 X1 (k3\_robins1 X0 X2) = k9\_robins1 X0 X2 (k3\_robins1 X0 X1))))$$