t40_rusub_2 (TMGgn3p6vo5sqn6UN3L8X44eFvwZdckQzcz)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v5\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v6\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v7\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v8\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v2\_bhsp\_1 : \iota \Rightarrow o$ be given. Let $l1\_bhsp\_1 : \iota \Rightarrow o$ be given. Let $m1\_rusub\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_rusub\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_rusub\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v5\_rlvect\_1\ X0) \wedge ((v6\_rlvect\_1\ X0) \wedge ((v7\_rlvect\_1\ X0) \wedge ((v8\_rlvect\_1\ X0) \wedge ((v2\_bhsp\_1\ X0) \wedge (l1\_bhsp\_1\ X0)))))))))))) \Rightarrow (\forall X1.(m1\_rusub\_1\ X1\ X0) \Rightarrow (\forall X2.(m1\_rusub\_1\ X2\ X0) \Rightarrow ((r1\_rusub\_2\ X0\ X1\ X2) \Rightarrow (r1\_rusub\_2\ X0\ X2\ X1)))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v5\_rlvect\_1\ X0) \wedge ((v6\_rlvect\_1\ X0) \wedge ((v7\_rlvect\_1\ X0) \wedge ((v8\_rlvect\_1\ X0) \wedge ((v2\_bhsp\_1\ X0) \wedge (l1\_bhsp\_1\ X0)))))))))))) \wedge (m1\_rusub\_1\ X1\ X0)) \Rightarrow (\forall X2.(m1\_rusub\_2\ X2\ X0\ X1) \Rightarrow (m1\_rusub\_1\ X2\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v5\_rlvect\_1\ X0) \wedge ((v6\_rlvect\_1\ X0) \wedge ((v7\_rlvect\_1\ X0) \wedge ((v8\_rlvect\_1\ X0) \wedge ((v2\_bhsp\_1\ X0) \wedge (l1\_bhsp\_1\ X0)))))))))))) \Rightarrow (\forall X1.(m1\_rusub\_1\ X1\ X0) \Rightarrow (\forall X2.(m1\_rusub\_1\ X2\ X0) \Rightarrow ((m1\_rusub\_2\ X2\ X0\ X1) \Leftrightarrow (r1\_rusub\_2\ X0\ X2\ X1)))) \tag{3}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v5\_rlvect\_1\ X0)\wedge((v6\_rlvect\_1\ X0)\wedge((v7\_rlvect\_1\ X0)\wedge((v8\_rlvect\_1\ X0)\wedge((v2\_bhsp\_1\ X0)\wedge(l1\_bhsp\_1\ X0)))))))))))\Rightarrow(\forall X1.(m1\_rusub\_1\ X1\ X0)\Rightarrow(\forall X2.(m1\_rusub\_2\ X2\ X0\ X1)\Rightarrow(m1\_rusub\_2\ X1\ X0\ X2)))$$