

t21\_fsm\_1

(TMNE6VvYpae6qgpJ8mStn5wvAhE5iVoYdAy)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l2\_fsm\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r6\_fsm\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_fsm\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow \\ & (\forall X2.((\neg v2\_struct\_0 X2) \wedge (l2\_fsm\_1 X2 X0 X1)) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (u1\_struct\_0 X2)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 \\ & (u1\_struct\_0 X2)) \Rightarrow (\forall X5.(v7\_ordinal1 X5) \Rightarrow ((r6\_fsm\_1 X0 \\ & X1 X2 X3 X4 X5) \Leftrightarrow (\forall X6.(m2\_finseq\_1 X6 X0) \Rightarrow ((r1\_xreal\_0 ( \\ & k3\_finseq\_1 X6) X5) \Rightarrow (k4\_fsm\_1 X0 X1 X2 X3 X6 = k4\_fsm\_1 X0 X1 X2 X4 X6)))))))))) \\ & (1) \end{aligned}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow \\ & (\forall X2.((\neg v2\_struct\_0 X2) \wedge (l2\_fsm\_1 X2 X0 X1)) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (u1\_struct\_0 X2)) \Rightarrow (\forall X4.(v7\_ordinal1 X4) \Rightarrow \\ & (r6\_fsm\_1 X0 X1 X2 X3 X3 X4)))))) \end{aligned}$$