

t68_interval1

(TMdGUETc26ViVqLWk8WV1vztjW6GSsyhMhW)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_roughs_1 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m2_interval1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_interval1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k17_interval1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_interval1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_roughs_1 X0) \wedge (l1_orders_2 \\ X0))) \Rightarrow (\forall X1.(m2_interval1 X1 X0) \Rightarrow (\forall X2.(m2_interval1 \\ X2 X0) \Rightarrow (r2_interval1 X0 (k16_interval1 X0 X1 (k17_interval1 X0 X1 X2)) \\ X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_roughs_1 X0) \wedge (l1_orders_2 \\ X0))) \Rightarrow (\forall X1.(m2_interval1 X1 X0) \Rightarrow (\forall X2.(m2_interval1 \\ X2 X0) \Rightarrow (\forall X3.(m2_interval1 X3 X0) \Rightarrow (r2_interval1 X0 (k17_interval1 \\ X0 X1 (k16_interval1 X0 X2 X3)) (k16_interval1 X0 (k17_interval1 X0 \\ X1 X2) (k17_interval1 X0 X1 X3)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v3_roughs_1 X0) \wedge (l1_orders_2 \\ X0))) \Rightarrow (\forall X1.(m2_interval1 X1 X0) \Rightarrow (r2_interval1 X0 (k17_interval1 \\ X0 X1 X1) X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0) \wedge ((v3_roughs_1 \\ X0) \wedge (l1_orders_2 X0))) \wedge ((m2_interval1 X1 X0) \wedge (m2_interval1 X2 \\ X0))) \Rightarrow ((r2_interval1 X0 X1 X2) \Leftrightarrow (X1 = X2)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0) \wedge ((v3_roughs_1 \\ X0) \wedge (l1_orders_2 X0))) \wedge ((m2_interval1 X1 X0) \wedge (m2_interval1 X2 \\ X0))) \Rightarrow (m2_interval1 (k17_interval1 X0 X1 X2) X0) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge(v3_roughs_1 X0)\wedge(l1_orders_2 X0)))\wedge((m2_interval X1 X0)\wedge(m2_interval X2 X0))\Rightarrow(m2_interval (k16_interval X0 X1 X2) X0) \quad (6)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0)\wedge(v3_roughs_1 X0)\wedge(l1_orders_2 X0))\Rightarrow(\forall X1.(m2_interval X1 X0)\Rightarrow(\forall X2.(m2_interval X2 X0)\Rightarrow(r2_interval X0 (k17_interval X0 X1 (k16_interval X0 X1 X2)) X1)))$$