

# l56\_modelc\_1

(TMSxPv8ejicLa1oHubt2KshDyThxXwXhYUT)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v10\_modelc\_1 : \iota \Rightarrow o$  be given. Let  $l2\_modelc\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k18\_modelc\_1 : \iota$  be given. Let  $u3\_modelc\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k12\_modelc\_1 : \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r2\_modelc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v3\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $np\_0 : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_modelc\_1 : \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v2\_modelc\_1 : \iota \Rightarrow o$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_modelc\_1 : \iota \Rightarrow o$  be given. Let  $u1\_robbins1 : \iota \Rightarrow \iota$  be given. Let  $k14\_modelc\_1 : \iota \Rightarrow \iota$  be given. Let  $v4\_modelc\_1 : \iota \Rightarrow o$  be given. Let  $k1\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_lattices : \iota \Rightarrow \iota$  be given. Let  $k15\_modelc\_1 : \iota \Rightarrow \iota$  be given. Let  $k16\_modelc\_1 : \iota \Rightarrow \iota$  be given. Let  $v5\_modelc\_1 : \iota \Rightarrow o$  be given. Let  $u4\_modelc\_1 : \iota \Rightarrow \iota$  be given. Let  $v6\_modelc\_1 : \iota \Rightarrow o$  be given. Let  $u5\_modelc\_1 : \iota \Rightarrow \iota$  be given. Let  $v7\_modelc\_1 : \iota \Rightarrow o$  be given. Let  $u6\_modelc\_1 : \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \Rightarrow ((v1\_xboole\_0 X0) \vee ((v2\_xxreal\_0 X1) \vee (v3\_xxreal\_0 X0)))))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$m1\_subset\_1 k1\_xboole\_0 k4\_ordinal1 \quad (3)$$

Assume the following.

$$v1\_xboole\_0 \text{ np\_}0 \quad (4)$$

Assume the following.

$$\neg r1\_xxreal\_0 \text{ np\_}1 \text{ np\_}0 \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge((\neg v1\_xboole\_0 X1)\wedge \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))))\Rightarrow(\forall X2.(m2\_subset\_1 \\ X2 X0 X1)\Leftrightarrow(m1\_subset\_1 X2 X1)) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0)\Leftrightarrow(m1\_finseq\_1 X1 X0) \quad (7)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (8)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (9)$$

Assume the following.

$$\exists X0.(v1\_xboole\_0 X0)\wedge((v1\_xcmplx\_0 X0)\wedge((v1\_xxreal\_0 \\ X0)\wedge(v1\_xreal\_0 X0))) \quad (10)$$

Assume the following.

$$\forall X0.((v1\_modelc\_1 X0)\wedge(m2\_finseq\_1 X0 k5\_numbers))\Rightarrow( \\ r1\_xxreal\_0 \text{ np\_}1 (k3\_finseq\_1 X0)) \quad (11)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1)\wedge(v3\_ordinal1 k4\_ordinal1) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0)\Rightarrow((v1\_relat\_1 X1)\wedge( \\ (v1\_funct\_1 X1)\wedge(v1\_finseq\_1 X1))) \quad (13)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (14)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v1\_finseq\_1 X0)))\Rightarrow \\ (m2\_subset\_1 (k3\_finseq\_1 X0) k1\_numbers k5\_numbers) \quad (15)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l2\_modelc\_1 X0) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge (( \\
& \quad v1\_funct\_2 X1 k18\_modelc\_1 (u3\_modelc\_1 X0)) \wedge (m1\_subset\_1 X1 \\
& \quad (k1\_zfmisc\_1 (k2\_zfmisc\_1 k18\_modelc\_1 (u3\_modelc\_1 X0)))))) \Rightarrow \\
& (\forall X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 k12\_modelc\_1 (u1\_struct\_0 \\
& \quad X0)) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k12\_modelc\_1 \\
& \quad (u1\_struct\_0 X0)))))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 k5\_numbers) \Rightarrow \\
& ((r2\_modelc\_1 X0 X1 X2 X3) \Leftrightarrow (\forall X4.((v1\_modelc\_1 X4) \wedge (m2\_finseq\_1 \\
& X4 k5\_numbers)) \Rightarrow ((r1\_xxreal\_0 (k3\_finseq\_1 X4) X3) \Rightarrow ((v2\_modelc\_1 \\
& X4) \Rightarrow (k1\_funct\_1 X2 X4 = k1\_funct\_1 X1 X4)) \wedge (((v3\_modelc\_1 X4) \Rightarrow \\
& (k1\_funct\_1 X2 X4 = k1\_funct\_1 (u1\_robbins1 X0) (k1\_funct\_1 X2 ( \\
& k14\_modelc\_1 X4)))) \wedge (((v4\_modelc\_1 X4) \Rightarrow (k1\_funct\_1 X2 X4 = k1\_binop\_1 \\
& (u1\_lattices X0) (k1\_funct\_1 X2 (k15\_modelc\_1 X4)) (k1\_funct\_1 \\
& X2 (k16\_modelc\_1 X4)))) \wedge (((v5\_modelc\_1 X4) \Rightarrow (k1\_funct\_1 X2 X4 = \\
& k1\_funct\_1 (u4\_modelc\_1 X0) (k1\_funct\_1 X2 (k14\_modelc\_1 X4)))) \wedge \\
& (((v6\_modelc\_1 X4) \Rightarrow (k1\_funct\_1 X2 X4 = k1\_funct\_1 (u5\_modelc\_1 \\
& X0) (k1\_funct\_1 X2 (k14\_modelc\_1 X4)))) \wedge ((v7\_modelc\_1 X4) \Rightarrow (k1\_funct\_1 \\
& X2 X4 = k1\_binop\_1 (u6\_modelc\_1 X0) (k1\_funct\_1 X2 (k15\_modelc\_1 \\
& X4)) (k1\_funct\_1 X2 (k16\_modelc\_1 X4))))))))))))) \tag{16}
\end{aligned}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \tag{17}$$

Assume the following.

$$\forall X0.((v1\_xxreal\_0 X0) \wedge (v2\_xxreal\_0 X0)) \Rightarrow ((\neg v1\_xboole\_0 X0) \wedge ((v1\_xxreal\_0 X0) \wedge (\neg v3\_xxreal\_0 X0))) \tag{18}$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow ((v7\_ordinal1 X0) \wedge (\neg v3\_xxreal\_0 X0)) \tag{19}$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (v1\_xxreal\_0 X0) \tag{20}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (v1\_xboole\_0 X1)) \tag{21}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v10\_modelc\_1 X0) \wedge (l2\_modelc\_1 \\
& X0))) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 k18\_modelc\_1 \\
& (u3\_modelc\_1 X0)) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& k18\_modelc\_1 (u3\_modelc\_1 X0)))))) \Rightarrow (\forall X2.((v1\_funct\_1 \\
& X2) \wedge ((v1\_funct\_2 X2 k12\_modelc\_1 (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k12\_modelc\_1 (u1\_struct\_0 X0)))))) \Rightarrow \\
& (r2\_modelc\_1 X0 X1 X2 k6\_numbers)))
\end{aligned}$$