

# t52\_modelc\_3 (TMKgoM- Gao1ZZdKQC32o9dvXBTfhUzLjnyKE)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_modelc\_2 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  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  $k23\_modelc\_3 : \iota \Rightarrow \iota$  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  $v1\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $g1\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_modelc\_3 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1\_modelc\_2 X1) \wedge (m2\_finseq\_1 X1 k5\_numbers)) \Rightarrow \\ & ((m1\_subset\_1 X0 (k23\_modelc\_3 X1)) \Leftrightarrow (\exists X2. ((v1\_modelc\_3 \\ & X2 X1) \wedge ((v3\_modelc\_3 X2 X1) \wedge (l1\_modelc\_3 X2 X1)))) \wedge (X2 = X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (2)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1\_xboole\_0 X0) \wedge \\ & (((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X0 X1)))))) \wedge (m1\_subset\_1 X3 X0))) \Rightarrow (k3\_funct\_2 X0 \\ & X1 X2 X3 = k1\_funct\_1 X2 X3) \end{aligned} \quad (4)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0 X0)\wedge \\ & (((v1\_funct\_1 X2)\wedge((v1\_funct\_2 X2 X0 X1)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X0 X1))))))\wedge(m1\_subset\_1 X3 X0))\Rightarrow(m1\_subset\_1 ( \\ & k3\_funct\_2 X0 X1 X2 X3) X1) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1\_modelc\_2 X1)\wedge(m2\_finseq\_1 X1 k5\_numbers))\Rightarrow \\ & (((v1\_modelc\_3 X0 X1)\wedge(l1\_modelc\_3 X0 X1))\Rightarrow(k10\_modelc\_3 X0 \\ & X1 = X0))\wedge((\neg(v1\_modelc\_3 X0 X1)\wedge(l1\_modelc\_3 X0 X1))\Rightarrow(k10\_modelc\_3 \\ & X0 X1 = g1\_modelc\_3 X1 (k7\_modelc\_3 X1) (k7\_modelc\_3 X1) (k7\_modelc\_3 \\ & X1))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0)\Leftrightarrow(X0 \in k4\_ordinal1) \quad (8)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v7\_ordinal1 X0)\Rightarrow(\forall X1.((v1\_modelc\_2 X1)\wedge( \\ & m2\_finseq\_1 X1 k5\_numbers))\Rightarrow(\forall X2.((v1\_funct\_1 X2)\wedge(( \\ & v1\_funct\_2 X2 k5\_numbers (k23\_modelc\_3 X1))\wedge(m1\_subset\_1 X2 ( \\ & k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers (k23\_modelc\_3 X1))))))\Rightarrow \\ & (\exists X3.((v1\_modelc\_3 X3 X1)\wedge((v3\_modelc\_3 X3 X1)\wedge(l1\_modelc\_3 \\ & X3 X1)))\wedge(X3 = k10\_modelc\_3 (k1\_funct\_1 X2 X0) X1))) \end{aligned}$$