

# l132\_modelc\_1

(TMRSnzx8vxXqxkSU2jxSaTKXXrXUkWdVXhA)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  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  $k30\_modelc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k48\_modelc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k51\_modelc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_margrel1 : \iota$  be given. Let  $k31\_modelc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_margrel1 : \iota$  be given. Let  $r3\_modelc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (\forall X2. (X2 \in X0) \Leftrightarrow (X2 \in X1)) \Rightarrow (X0 = X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((v1\_partfun1 X1 X0) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))) \Rightarrow (\forall X2. \\ & ((\neg v1\_xboole\_0 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k30\_modelc\_1 \\ & X0)))) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 (k48\_modelc\_1 \\ & X0 X1 X2))) \Rightarrow (k51\_modelc\_1 X0 X1 X2 X3 = ReplSep (toSet (\lambda X4 : \iota. \\ & m1\_subset\_1 X4 X0)) (\lambda X4 : \iota. r3\_modelc\_1 X0 X1 X2 X4 X3) (\lambda X4 : \\ & \iota. X4)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((v1\_partfun1 X1 X0) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))) \Rightarrow (\forall X2. \\ & ((\neg v1\_xboole\_0 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k30\_modelc\_1 \\ & X0)))) \Rightarrow (\forall X3. (m1\_subset\_1 X3 X0) \Rightarrow (\forall X4. (m1\_subset\_1 \\ & X4 (u1\_struct\_0 (k48\_modelc\_1 X0 X1 X2))) \Rightarrow ((r3\_modelc\_1 X0 X1 X2 \\ & X3 X4) \Leftrightarrow (k3\_funct\_2 X0 k6\_margrel1 (k31\_modelc\_1 X0 X4) X3 = k8\_margrel1)))))) \end{aligned} \quad (3)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_partfun1 X1 X0) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))) \Rightarrow (\forall X2. \\ & ((\neg v1\_xboole\_0 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k30\_modelc\_1 \\ & X0)))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k48\_modelc\_1 \\ & X0 X1 X2))) \Rightarrow (k51\_modelc\_1 X0 X1 X2 X3 = ReplSep (toset (\lambda X4 : \iota. \\ & m1\_subset\_1 X4 X0)) (\lambda X4 : \iota. k3\_funct\_2 X0 k6\_margrel1 (k31\_modelc\_1 \\ & X0 X3) X4 = k8\_margrel1) (\lambda X4 : \iota. X4)))))) \end{aligned}$$