t32_modelc_1 (TMbCkymc8opBthyX6UjwhFUUbn4yx7j5E51)

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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 $k51\_modelc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k52\_modelc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k48\_modelc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v1\_partfun1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)))) \Rightarrow (\forall X2.((\neg v1\_xboole\_0\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k30\_modelc\_1\ X0)))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k48\_modelc\_1\ X0\ X1\ X2))) \Rightarrow (k52\_modelc\_1\ X0\ X1\ X2\ (k51\_modelc\_1\ X0\ X1\ X2\ X3) = X3))))) \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v1\_partfun1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)))) \Rightarrow (\forall X2.((\neg v1\_xboole\_0\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k30\_modelc\_1\ X0)))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ X0)) \Rightarrow ((k52\_modelc\_1\ X0\ X1\ X2\ X3 = k52\_modelc\_1\ X0\ X1\ X2\ X4) \Rightarrow (X3 = X4)))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0) \wedge (((v1\_partfun1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)))) \wedge (((\neg v1\_xboole\_0\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k30\_modelc\_1\ X0)))) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ X0))))) \Rightarrow (m1\_subset\_1\ (k52\_modelc\_1\ X0\ X1\ X2\ X3)\ (u1\_struct\_0\ (k48\_modelc\_1\ X0\ X1\ X2))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0\ X0)\wedge (((v1\_partfun1\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0))))\wedge(((\neg v1\_xboole\_0\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k30\_modelc\_1\ X0))))\wedge(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k48\_modelc\_1\ X0\ X1\ X2))))))\Rightarrow(m1\_subset\_1\ (k51\_modelc\_1\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ X0)) \tag{4}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((v1\_partfun1\ X1\ X0)\wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0))))\Rightarrow(\forall X2.((\neg v1\_xboole\_0\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k30\_modelc\_1\ X0))))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ X0))\Rightarrow(k51\_modelc\_1\ X0\ X1\ X2\ (k52\_modelc\_1\ X0\ X1\ X2\ X3) = X3))))$$