t11_pralg_3 (TMJLexqqDZgYdNAgGJRjr-PHGvhWh3YFhS7j)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v11\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_msualg\_1 : \iota \Rightarrow o$ be given. Let $l3\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k1\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2\_pboole : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $u3\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_msualg\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v11\_struct\_0\ X0) \wedge (l1\_msualg\_1\ X0))) \Rightarrow (\forall X1.(l3\_msualg\_1\ X1\ X0) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u4\_struct\_0\ X0)) \Rightarrow ((k1\_msualg\_1\ X0\ X2 = k1\_xboole\_0) \Rightarrow (k3\_msualg\_1\ X0\ X2\ X1 = k1\_tarski\ k1\_xboole\_0)))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{2}$$

Assume the following.

$$\forall X0.\neg v1\_xboole\_0\ (k1\_tarski\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. (((\neg v2\_struct\_0\ X0) \wedge ((\neg v11\_struct\_0\ X0) \wedge (l1\_msualg\_1\ X0))) \wedge ((l3\_msualg\_1\ X1\ X0) \wedge ((l3\_msualg\_1\ X2\ X0) \wedge ((m1\_subset\_1\ X3\ (u4\_struct\_0\ X0)) \wedge ((m2\_pboole\ X4\ (u1\_struct\_0\ X0)\ (u3\_msualg\_1\ X0\ X1)\ (u3\_msualg\_1\ X0\ X2)) \wedge (m1\_subset\_1\ X5\ (k3\_msualg\_1\ X0\ X3\ X1))))))) \Rightarrow (m1\_subset\_1\ (k5\_msualg\_3\ X0\ X1\ X2\ X3\ X4\ X5)\ (k3\_msualg\_1\ X0\ X3\ X2)) \tag{4}$$

Assume the following.

$$k1\_xboole\_0 = the\ (\lambda X0 : \iota.v1\_xboole\_0\ X0) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1\_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \tag{6}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v11\_struct\_0\ X0) \wedge (l1\_msualg\_1\ X0))) \Rightarrow (\forall X1.(l3\_msualg\_1\ X1\ X0) \Rightarrow (\forall X2.(l3\_msualg\_1\ X2\ X0) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u4\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (k3\_msualg\_1\ X0\ X3\ X1)) \Rightarrow (((X4 = k1\_xboole\_0) \wedge (k1\_msualg\_1\ X0\ X3 = k1\_xboole\_0)) \Rightarrow ((k3\_msualg\_1\ X0\ X3\ X1 = k1\_xboole\_0) \vee ((k3\_msualg\_1\ X0\ X3\ X2 = k1\_xboole\_0) \vee (\forall X5.(m2\_pboole\ X5\ (u1\_struct\_0\ X0)\ (u3\_msualg\_1\ X0\ X1)\ (u3\_msualg\_1\ X0\ X2)) \Rightarrow (k5\_msualg\_3\ X0\ X1\ X2\ X3\ X5\ X4 = k1\_xboole\_0)))))))))$$