t69_classes2 (TMHkQhTwJqSKvD-vCGjiE86YC6vFwGqupa42)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_classes2 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13\_classes2 : \iota$ be given. Let $k1\_classes1 : \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k16\_classes2 : \iota \Rightarrow \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $k1\_ordinal1 : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v5\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v4\_ordinal1 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15\_classes2 : \iota \Rightarrow \iota$ be given. Let $k3\_card\_3 : \iota \Rightarrow \iota$ be given. Let $r1\_classes1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_classes1 : \iota \Rightarrow o$ be given. Let $v1\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (v1\_classes2\ X0)) \Rightarrow (k1\_xboole\_0 \in X0) \tag{1}$$

Assume the following.

$$\begin{gathered}(k16\_classes2\ k1\_xboole\_0 = k13\_classes2) \wedge ((\forall X0.(v3\_ordinal1\ X0) \Rightarrow (k16\_classes2\ (k1\_ordinal1\ X0) = k1\_classes1\ (k16\_classes2\ X0))) \wedge (\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v5\_ordinal1\ X1) \wedge (v1\_funct\_1\ X1))) \Rightarrow (((v4\_ordinal1\ X0) \wedge ((k9\_xtuple\_0\ X1 = X0) \wedge (\forall X2.(v3\_ordinal1\ X2) \Rightarrow ((X2 \in X0) \Rightarrow (k1\_funct\_1\ X1\ X2 = k16\_classes2\ X2))))) \Rightarrow ((X0 = k1\_xboole\_0) \vee (k16\_classes2\ X0 = k15\_classes2\ (k3\_card\_3\ X1)))))))\end{gathered} \tag{2}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.(X1 = k1\_classes1\ X0) \Leftrightarrow ((r1\_classes1\ X0\ X1) \wedge (\forall X2.(r1\_classes1\ X0\ X2) \Rightarrow (r1\_tarski\ X1\ X2)))\end{gathered} \tag{3}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.(r1\_classes1\ X0\ X1) \Leftrightarrow ((X0 \in X1) \wedge (v2\_classes1\ X1))\end{gathered} \tag{4}$$

Assume the following.

$$k13\_classes2 = k1\_classes1\ k1\_xboole\_0 \tag{5}$$

Assume the following.

$$\forall X0.(v1\_classes2\ X0) \Leftrightarrow ((v1\_ordinal1\ X0) \wedge (v2\_classes1\ X0)) \tag{6}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (v1\_classes2\ X0)) \Rightarrow ((r1\_tarski\ k13\_classes2\ X0) \wedge ((r1\_tarski\ (k1\_classes1\ k1\_xboole\_0)\ X0) \wedge (r1\_tarski\ (k16\_classes2\ k1\_xboole\_0)\ X0)))$$