t24_classes2 (TMUaBTJqbpodnVw8Gjz6FbwjS49zhKi14dR)

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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 $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_classes1 : \iota \Rightarrow \iota$ be given. Let $k3\_card\_3 : \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_tarski : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_relat\_1\ X0) \Rightarrow ((k9\_xtuple\_0\ X0 = k1\_xboole\_0) \Leftrightarrow (k10\_xtuple\_0\ X0 = k1\_xboole\_0)) \tag{1}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow ((v4\_ordinal1\ X0) \Rightarrow ((X0 = k1\_xboole\_0) \vee (\forall X1.(X1 \in k4\_classes1\ X0) \Leftrightarrow (\exists X2.(v3\_ordinal1\ X2) \wedge ((X2 \in X0) \wedge (X1 \in k4\_classes1\ X2)))))) \tag{2}$$

Assume the following.

$$k3\_tarski\ k1\_xboole\_0 = k1\_xboole\_0 \tag{3}$$

Assume the following.

$$k4\_classes1\ k1\_xboole\_0 = k1\_xboole\_0 \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v5\_ordinal1\ X0))) \Rightarrow (v3\_ordinal1\ (k9\_xtuple\_0\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k3\_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X2 \in X3) \wedge (X3 \in X0))) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(k3\_card\_3\ X0 = k3\_tarski\ (k10\_xtuple\_0\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(\forall X1.(X1 = k10\_xtuple\_0\ X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow(\exists X3.(X3 \in k9\_xtuple\_0\ X0)\wedge(X2 = k1\_funct\_1\ X0\ X3)))) \tag{9}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v3\_ordinal1\ X1)) \tag{10}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v5\_ordinal1\ X0)\wedge(v1\_funct\_1\ X0)))\Rightarrow(((v4\_ordinal1\ (k9\_xtuple\_0\ X0))\wedge(\forall X1.(v3\_ordinal1\ X1)\Rightarrow((X1 \in k9\_xtuple\_0\ X0)\Rightarrow(k1\_funct\_1\ X0\ X1 = k4\_classes1\ X1))))\Rightarrow(k4\_classes1\ (k9\_xtuple\_0\ X0) = k3\_card\_3\ X0))$$