t42_classes2 (TMc9gz5FFkuBBdUAHuKPBgviPnt4eVnPGLA)

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Let $v2\_classes1 : \iota \Rightarrow o$ be given. Let $v1\_ordinal1 : \iota \Rightarrow o$ be given. Let $k4\_classes1 : \iota \Rightarrow \iota$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_classes1 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_classes1 : \iota \Rightarrow o$ be given. Let $r2\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_card\_1 : \iota \Rightarrow o$ be given. Let $v2\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow ((k1\_card\_1\ X0 \in k1\_card\_1\ X1) \Rightarrow (X0 \in X1))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_ordinal1\ X0) \Rightarrow (r1\_ordinal1\ (k1\_card\_1\ (k6\_classes1\ X0))\ (k1\_card\_1\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(v3\_ordinal1\ X2) \Rightarrow (((r1\_tarski\ X0\ X1) \wedge (X1 \in k4\_classes1\ X2)) \Rightarrow (X0 \in k4\_classes1\ X2)) \tag{3}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (k4\_classes1\ X0 \in k4\_classes1\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_classes1\ X0) \wedge (X1 \in X0)) \Rightarrow ((\neg r2\_tarski\ X1\ X0) \wedge (k1\_card\_1\ X1 \in k1\_card\_1\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow (\forall X2. (v3\_ordinal1\ X2) \Rightarrow (((r1\_tarski\ X0\ X1) \wedge (X1 \in X2)) \Rightarrow (X0 \in X2)))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0)\wedge(v3\_ordinal1\ X1))\Rightarrow(\\(r1\_ordinal1\ X0\ X1)\Leftrightarrow(r1\_tarski\ X0\ X1)) \tag{7}$$

Assume the following.

$$\forall X0.k1\_card\_1\ (k1\_card\_1\ X0) = k1\_card\_1\ X0 \tag{8}$$

Assume the following.

$$\forall X0.v3\_ordinal1\ (k6\_classes1\ X0) \tag{9}$$

Assume the following.

$$\forall X0.v1\_card\_1\ (k1\_card\_1\ X0) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(v3\_ordinal1\ X1)\Rightarrow((X1 = k6\_classes1\ X0)\Leftrightarrow\\((r1\_tarski\ X0\ (k4\_classes1\ X1))\wedge(\forall X2.(v3\_ordinal1\ X2)\Rightarrow\\((r1\_tarski\ X0\ (k4\_classes1\ X2))\Rightarrow(r1\_ordinal1\ X1\ X2))))) \tag{11}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0)\Rightarrow((v1\_ordinal1\ X0)\wedge(v2\_ordinal1\ X0)) \tag{12}$$

Assume the following.

$$\forall X0.(v2\_classes1\ X0)\Rightarrow(v1\_classes1\ X0) \tag{13}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0)\Rightarrow(v3\_ordinal1\ X0) \tag{14}$$

Theorem 1

$$\forall X0.\forall X1.((v2\_classes1\ X0)\wedge((v1\_ordinal1\ X1)\wedge(\\X1 \in X0)))\Rightarrow(X1 \in k4\_classes1\ (k1\_card\_1\ X0))$$