t7_ordinal6 (TMYSQP9VK1tv3Kv5bEVRqXSDJWT5tFcjQZe)

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Let $v1\_ordinal6 : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $r3\_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_wellord2 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_relat\_1 : \iota \Rightarrow \iota$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v2\_funct\_1 : \iota \Rightarrow o$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_relat\_1\ X2) \wedge (v1\_funct\_1\ X2)) \Rightarrow ((r3\_wellord1\ (k1\_wellord2\ X0)\ (k1\_wellord2\ X1)\ X2) \Rightarrow (\forall X3.\forall X4.((X3 \in X0) \wedge (X4 \in X0)) \Rightarrow ((r1\_tarski\ X3\ X4) \Leftrightarrow (r1\_tarski\ (k1\_funct\_1\ X2\ X3)\ (k1\_funct\_1\ X2\ X4))))) \tag{1}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow ((r1\_ordinal1\ X0\ X1) \Leftrightarrow (\neg X1 \in X0))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0) \wedge (v3\_ordinal1\ X1)) \Rightarrow ((r1\_ordinal1\ X0\ X1) \Leftrightarrow (r1\_tarski\ X0\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.v1\_relat\_1\ (k1\_wellord2\ X0) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0)\Rightarrow(\forall X1.(v1\_relat\_1\ X1)\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge(v1\_funct\_1\ X2))\Rightarrow((r3\_wellord1\ X0\ X1\ X2)\Leftrightarrow((k9\_xtuple\_0\ X2 = k1\_relat\_1\ X0)\wedge((k10\_xtuple\_0\ X2 = k1\_relat\_1\ X1)\wedge((v2\_funct\_1\ X2)\wedge(\forall X3.\forall X4.(k4\_tarski\ X3\ X4 \in X0)\Leftrightarrow((X3 \in k1\_relat\_1\ X0)\wedge((X4 \in k1\_relat\_1\ X0)\wedge(k4\_tarski\ (k1\_funct\_1\ X2\ X3)\ (k1\_funct\_1\ X2\ X4) \in X1)))))))))) \tag{6}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(\forall X1.(X1 = k10\_xtuple\_0\ X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow(\exists X3.(X3 \in k9\_xtuple\_0\ X0)\wedge(X2 = k1\_funct\_1\ X0\ X3)))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_relat\_1\ X1)\Rightarrow((X1 = k1\_wellord2\ X0)\Leftrightarrow((k1\_relat\_1\ X1 = X0)\wedge(\forall X2.\forall X3.((X2 \in X0)\wedge(X3 \in X0))\Rightarrow((k4\_tarski\ X2\ X3 \in X1)\Leftrightarrow(r1\_tarski\ X2\ X3))))) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_ordinal6\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v3\_ordinal1\ X1)) \tag{9}$$

Theorem 1

$$\forall X0.(v1\_ordinal6\ X0)\Rightarrow(\forall X1.(v1\_ordinal6\ X1)\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge(v1\_funct\_1\ X2))\Rightarrow((r3\_wellord1\ (k1\_wellord2\ X0)\ (k1\_wellord2\ X1)\ X2)\Rightarrow(\forall X3.\forall X4.((X3 \in X0)\wedge(X4 \in X0))\Rightarrow((X3 \in X4)\Leftrightarrow(k1\_funct\_1\ X2\ X3 \in k1\_funct\_1\ X2\ X4))))))$$