t21_metrizts (TMXsT5pWujCgthXnYiBzwV6yEbLYEJrXwTH)

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Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $v3\_pcomps\_1 : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_card\_1 : \iota \Rightarrow o$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_waybel23 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_tops\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $v2\_tex\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_topgen\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{1}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0) \wedge ((v3\_pcomps\_1\ X0) \wedge (l1\_pre\_topc\ X0))) \Rightarrow (\forall X1.((\neg v1\_finset\_1\ X1) \wedge (v1\_card\_1\ X1)) \Rightarrow ((r1\_ordinal1\ (k2\_waybel23\ X0)\ X1) \Leftrightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((v2\_tex\_2\ X2\ X0) \Rightarrow (r1\_ordinal1\ (k1\_card\_1\ X2)\ X1))))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow (\forall X1.((v2\_pre\_topc\ X1) \wedge (l1\_pre\_topc\ X1)) \Rightarrow ((\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1))) \Rightarrow ((v2\_tex\_2\ X2\ X1) \Rightarrow (r1\_ordinal1\ (k1\_card\_1\ X2)\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1)))) \Rightarrow (((v1\_tops\_2\ X2\ X1) \wedge (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1))) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1))) \Rightarrow (((X3 \in X2) \wedge (X4 \in X2)) \Rightarrow ((X3 = X4) \vee (r1\_xboole\_0\ X3\ X4)))))) \Rightarrow ((k1\_xboole\_0 \in X2) \vee (r1\_ordinal1\ (k1\_card\_1\ X2)\ X0)))))) \tag{3}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0) \wedge ((v3\_pcomps\_1\ X0) \wedge (l1\_pre\_topc\ X0))) \Rightarrow (\forall X1.((\neg v1\_finset\_1\ X1) \wedge (v1\_card\_1\ X1)) \Rightarrow ((r1\_ordinal1\ (k4\_topgen\_1\ X0)\ X1) \Rightarrow (r1\_ordinal1\ (k2\_waybel23\ X0)\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0)\wedge((v3\_pcomps\_1\ X0)\wedge(l1\_pre\_topc\ X0)))\Rightarrow(\forall X1.((\neg v1\_finset\_1\ X1)\wedge(v1\_card\_1\ X1))\Rightarrow((\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow(((v1\_tops\_2\ X2\ X0)\wedge(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((X3\in X2)\wedge(X4\in X2))\Rightarrow((X3=X4)\vee(r1\_xboole\_0\ X3\ X4))))))\Rightarrow((k1\_xboole\_0\in X2)\vee(r1\_ordinal1\ (k1\_card\_1\ X2)\ X1))))\Rightarrow(r1\_ordinal1\ (k4\_topgen\_1\ X0)\ X1))) \tag{5}$$

Theorem 1

$$\forall X0.((v2\_pre\_topc\ X0)\wedge((v3\_pcomps\_1\ X0)\wedge(l1\_pre\_topc\ X0)))\Rightarrow(\forall X1.((\neg v1\_finset\_1\ X1)\wedge(v1\_card\_1\ X1))\Rightarrow((r1\_ordinal1\ (k2\_waybel23\ X0)\ X1)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow(((v1\_tops\_2\ X2\ X0)\wedge(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((X3\in X2)\wedge(X4\in X2))\Rightarrow((X3=X4)\vee(r1\_xboole\_0\ X3\ X4))))))\Rightarrow((k1\_xboole\_0\in X2)\vee(r1\_ordinal1\ (k1\_card\_1\ X2)\ X1))))))$$