t12_mfold_1 (TMKuPrjzEBUZPvem-SAmGccw1aiMze68UL59)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $v2\_mfold\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $m1\_connsp\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_mfold\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k15\_euclid : \iota \Rightarrow \iota$ be given. Let $r1\_metrizts : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_pre\_topc\ X1) \wedge (l1\_pre\_topc\ X1))) \Rightarrow ((v2\_mfold\_1\ X1\ X0) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1)) \Rightarrow (\exists X3.(m1\_connsp\_2\ X3\ X1\ X2) \wedge (\exists X4.((\neg v1\_xboole\_0\ X4) \wedge ((v1\_mfold\_1\ X4\ X0) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ X0)))))) \wedge (r1\_metrizts\ X1\ (k15\_euclid\ X0)\ X3\ X4))))))) \tag{1}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_pre\_topc\ X1) \wedge (l1\_pre\_topc\ X1))) \Rightarrow ((v2\_mfold\_1\ X1\ X0) \Leftrightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1)) \Rightarrow (\exists X3.(m1\_connsp\_2\ X3\ X1\ X2) \wedge (\exists X4.((v3\_pre\_topc\ X4\ (k15\_euclid\ X0)) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ X0))))) \wedge (r1\_metrizts\ X1\ (k15\_euclid\ X0)\ X3\ X4))))))) \tag{2}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ X0)))) \Rightarrow ((v1\_mfold\_1\ X1\ X0) \Rightarrow (v3\_pre\_topc\ X1\ (k15\_euclid\ X0)))) \tag{3}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge ((v2\_pre\_topc\ X1)\wedge(l1\_pre\_topc\ X1)))\Rightarrow((v2\_mfold\_1\ X1\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1))\Rightarrow(\exists X3.(m1\_connsp\_2\ X3\ X1\ X2)\wedge(\exists X4.((v1\_mfold\_1\ X4\ X0)\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid\ X0)))))\wedge(r1\_metrizts\ X1\ (k15\_euclid\ X0)\ X3\ X4))))))$$