t8_euclmetr (TMbSmC1894ueqMX1RxtuLMkx6ZBpf5jtW8s)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v3\_analmetr : \iota \Rightarrow o$ be given. Let $l1\_analmetr : \iota \Rightarrow o$ be given. Let $v1\_euclmetr : \iota \Rightarrow o$ be given. Let $v3\_conaffm : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r4\_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5\_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_analmetr : \iota \Rightarrow o$ be given. Let $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v3\_analmetr\ X0) \wedge (l1\_analmetr\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (\neg(r4\_analmetr\ X0\ X1\ X2\ X3\ X4) \wedge ((r4\_analmetr\ X0\ X2\ X3\ X1\ X4) \wedge ((r5\_analmetr\ X0\ X1\ X2\ X3) \wedge ((X1 \neq X3) \wedge ((X1 \neq X2) \wedge (X2 \neq X3)))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v3\_analmetr\ X0) \wedge (l1\_analmetr\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0)) \Rightarrow (((r4\_analmetr\ X0\ X4\ X1\ X2\ X3) \wedge ((r4\_analmetr\ X0\ X4\ X2\ X1\ X3) \wedge ((r4\_analmetr\ X0\ X5\ X1\ X2\ X3) \wedge (r4\_analmetr\ X0\ X5\ X2\ X1\ X3)))) \Rightarrow ((r5\_analmetr\ X0\ X1\ X2\ X3) \vee (X4 = X5)))))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_analmetr\ X0)\wedge(l1\_analmetr\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow((r4\_analmetr\ X0\ X1\ X2\ X3\ X4)\Rightarrow((r4\_analmetr\ X0\ X1\ X2\ X4\ X3)\wedge((r4\_analmetr\ X0\ X2\ X1\ X3\ X4)\wedge((r4\_analmetr\ X0\ X2\ X1\ X4\ X3)\wedge((r4\_analmetr\ X0\ X3\ X4\ X1\ X2)\wedge((r4\_analmetr\ X0\ X3\ X4\ X2\ X1)\wedge((r4\_analmetr\ X0\ X4\ X3\ X1\ X2)\wedge(r4\_analmetr\ X0\ X4\ X3\ X2\ X1)))))))))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_analmetr\ X0)\wedge(l1\_analmetr\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\neg(\neg r5\_analmetr\ X0\ X1\ X2\ X3)\wedge(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\neg(r4\_analmetr\ X0\ X4\ X1\ X2\ X3)\wedge(r4\_analmetr\ X0\ X4\ X2\ X1\ X3))))))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_analmetr\ X0)\wedge(l1\_analmetr\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r4\_analmetr\ X0\ X1\ X2\ X3\ X3)\wedge((r4\_analmetr\ X0\ X3\ X3\ X1\ X2)\wedge((r2\_analoaf\ X0\ X1\ X2\ X3\ X3)\wedge(r2\_analoaf\ X0\ X3\ X3\ X1\ X2))))))) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_analmetr\ X0)\wedge(l1\_analmetr\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r5\_analmetr\ X0\ X1\ X2\ X3)\Rightarrow((r5\_analmetr\ X0\ X1\ X3\ X2)\wedge((r5\_analmetr\ X0\ X2\ X1\ X3)\wedge((r5\_analmetr\ X0\ X2\ X3\ X1)\wedge((r5\_analmetr\ X0\ X3\ X1\ X2)\wedge(r5\_analmetr\ X0\ X3\ X2\ X1))))))))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_analmetr\ X0)\wedge(l1\_analmetr\ X0)))\Rightarrow((v3\_conaffm\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\neg(\neg r5\_analmetr\ X0\ X1\ X2\ X3)\wedge(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\neg(r4\_analmetr\ X0\ X4\ X1\ X2\ X3)\wedge((r4\_analmetr\ X0\ X4\ X2\ X1\ X3)\wedge(r4\_analmetr\ X0\ X4\ X3\ X1\ X2))))))))) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_analmetr\ X0)\wedge(l1\_analmetr\ X0)))\Rightarrow((v1\_euclmetr\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(((r4\_analmetr\ X0\ X1\ X2\ X3\ X4)\wedge(r4\_analmetr\ X0\ X2\ X3\ X1\ X4))\Rightarrow(r4\_analmetr\ X0\ X2\ X4\ X1\ X3)))))))) \tag{8}$$

Assume the following.

$$\forall X0.(l1\_analmetr\ X0)\Rightarrow(((\neg v2\_struct\_0\ X0)\wedge(v3\_analmetr\ X0))\Rightarrow((\neg v2\_struct\_0\ X0)\wedge(v2\_analmetr\ X0))) \tag{9}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_analmetr\ X0)\wedge(l1\_analmetr\ X0)))\Rightarrow((v1\_euclmetr\ X0)\Leftrightarrow(v3\_conaffm\ X0))$$