t14_topalg_2 (TMcxgj5cBh54fxh7TJDmjgw5bEpMGYppfsF)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_topmetr : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_borsuk\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3\_borsuk\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_topalg\_2 : \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_topalg\_2 : \iota$ be given. Let $r4\_borsuk\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $v1\_borsuk\_2 : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $k3\_topmetr : \iota$ be given. Let $v1\_pre\_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow (v2\_topalg\_2\ (k4\_topmetr\ X0\ X1)))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_topalg\_2\ X0) \wedge (m1\_pre\_topc\ X0\ k2\_topalg\_2))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_borsuk\_2\ X3\ X0\ X1\ X2) \Rightarrow (\forall X4.(m1\_borsuk\_2\ X4\ X0\ X1\ X2) \Rightarrow (r4\_borsuk\_2\ X0\ X1\ X2\ X3\ X4))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(((\neg v2\_struct\_0\ X0) \wedge ((v2\_pre\_topc\ X0) \wedge ((v1\_borsuk\_2\ X0) \wedge (l1\_pre\_topc\ X0)))) \wedge ((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \wedge ((m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \wedge ((m1\_borsuk\_2\ X3\ X0\ X1\ X2) \wedge (m1\_borsuk\_2\ X4\ X0\ X1\ X2))))) \Rightarrow ((r4\_borsuk\_2\ X0\ X1\ X2\ X3\ X4) \Leftrightarrow (r3\_borsuk\_2\ X0\ X1\ X2\ X3\ X4)) \tag{3}$$

Assume the following.

$$k2\_topalg\_2 = k3\_topmetr \tag{4}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_pre\_topc\ X1\ X0) \Rightarrow (l1\_pre\_topc\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow((\neg v2\_struct\_0\ (k4\_topmetr\ X0\ X1))\wedge((v1\_pre\_topc\ (k4\_topmetr\ X0\ X1))\wedge(m1\_pre\_topc\ (k4\_topmetr\ X0\ X1)\ k3\_topmetr))) \tag{6}$$

Assume the following.

$$(v2\_pre\_topc\ k3\_topmetr)\wedge(l1\_pre\_topc\ k3\_topmetr) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_pre\_topc\ X0\ k2\_topalg\_2)\Rightarrow(((\neg v2\_struct\_0\ X0)\wedge(v2\_topalg\_2\ X0))\Rightarrow((\neg v2\_struct\_0\ X0)\wedge(v1\_borsuk\_2\ X0))) \tag{8}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1.(m1\_pre\_topc\ X1\ X0)\Rightarrow(v2\_pre\_topc\ X1)) \tag{9}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow((r1\_xxreal\_0\ X0\ X1)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k4\_topmetr\ X0\ X1)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k4\_topmetr\ X0\ X1)))\Rightarrow(\forall X4.(m1\_borsuk\_2\ X4\ (k4\_topmetr\ X0\ X1)\ X2\ X3)\Rightarrow(\forall X5.(m1\_borsuk\_2\ X5\ (k4\_topmetr\ X0\ X1)\ X2\ X3)\Rightarrow(r3\_borsuk\_2\ (k4\_topmetr\ X0\ X1)\ X2\ X3\ X4\ X5)))))))$$