t87_complex2 (TMa6MrCo3qPt39Avfms4yJdQwMEospXm1qn)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_numbers : \iota$ be given. Let $k4\_complex2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k32\_sin\_cos : \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_5 : \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $v3\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $np\_\_2 : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k10\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_real\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_3 : \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $np\_\_0 : \iota$ be given. Let $k31\_sin\_cos : \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k2\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k2\_numbers) \Rightarrow ((k4\_complex2\ X0\ X1\ X2 = k32\_sin\_cos) \Rightarrow ((X0 = X1) \vee ((X1 = X2) \vee ((k4\_complex2\ X1\ X2\ X0 = k6\_numbers) \wedge (k4\_complex2\ X2\ X0\ X1 = k6\_numbers)))))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k2\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k2\_numbers) \Rightarrow (\neg(X0 \neq X1) \wedge ((X1 \neq X2) \wedge ((\neg r1\_xxreal\_0\ (k4\_complex2\ X0\ X1\ X2)\ k32\_sin\_cos) \wedge (\neg(k2\_xcmplx\_0\ (k2\_xcmplx\_0\ (k4\_complex2\ X0\ X1\ X2)\ (k4\_complex2\ X1\ X2\ X0))\ (k4\_complex2\ X2\ X0\ X1) = k8\_real\_1\ np\_\_5\ k32\_sin\_cos) \wedge ((\neg r1\_xxreal\_0\ (k4\_complex2\ X1\ X2\ X0)\ k32\_sin\_cos) \wedge (\neg r1\_xxreal\_0\ (k4\_complex2\ X2\ X0\ X1)\ k32\_sin\_cos)))))))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k2\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k2\_numbers)\Rightarrow(\neg(X0\neq X1)\wedge((X1\neq X2)\wedge((\neg r1\_xxreal\_0\ (k4\_complex2\ X0\ X1\ X2)\ k6\_numbers)\wedge((\neg r1\_xxreal\_0\ k32\_sin\_cos\ (k4\_complex2\ X0\ X1\ X2))\wedge(\neg(k2\_xcmplx\_0\ (k2\_xcmplx\_0\ (k4\_complex2\ X0\ X1\ X2)\ (k4\_complex2\ X1\ X2\ X0))\ (k4\_complex2\ X2\ X0\ X1) = k32\_sin\_cos)\wedge((\neg r1\_xxreal\_0\ (k4\_complex2\ X1\ X2\ X0)\ k6\_numbers)\wedge(\neg r1\_xxreal\_0\ (k4\_complex2\ X2\ X0\ X1)\ k6\_numbers)))))))))) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k2\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k2\_numbers)\Rightarrow(\neg(X0\neq X1)\wedge((X0\neq X2)\wedge((X1\neq X2)\wedge((k4\_complex2\ X0\ X1\ X2 = k6\_numbers)\wedge((k4\_complex2\ X1\ X2\ X0 = k6\_numbers)\wedge(k4\_complex2\ X2\ X0\ X1 = k6\_numbers))))))))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X0\ X1)\wedge((\neg v2\_xxreal\_0\ X0)\wedge(\neg v3\_xxreal\_0\ X1)))) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k2\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k2\_numbers)\Rightarrow((r1\_xxreal\_0\ k6\_numbers\ (k4\_complex2\ X0\ X1\ X2))\wedge(\neg r1\_xxreal\_0\ (k8\_real\_1\ np\_\_2\ k32\_sin\_cos)\ (k4\_complex2\ X0\ X1\ X2))))) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(X0 = k1\_xboole\_0) \tag{7}$$

Assume the following.

$$(\neg r1\_xxreal\_0\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)\ k6\_numbers)\wedge((\neg r1\_xxreal\_0\ k32\_sin\_cos\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2))\wedge((\neg r1\_xxreal\_0\ k32\_sin\_cos\ k6\_numbers)\wedge((\neg r1\_xxreal\_0\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)\ (k1\_real\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)))\wedge((\neg r1\_xxreal\_0\ (k8\_real\_1\ np\_\_2\ k32\_sin\_cos)\ k32\_sin\_cos)\wedge((\neg r1\_xxreal\_0\ (k8\_real\_1\ (k10\_real\_1\ np\_\_3\ np\_\_2)\ k32\_sin\_cos)\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2))\wedge((\neg r1\_xxreal\_0\ k6\_numbers\ (k1\_real\_1\ (k10\_real\_1\ k32\_sin\_cos\ np\_\_2)))\wedge((\neg r1\_xxreal\_0\ (k8\_real\_1\ np\_\_2\ k32\_sin\_cos)\ k6\_numbers)\wedge((\neg r1\_xxreal\_0\ (k8\_real\_1\ (k10\_real\_1\ np\_\_3\ np\_\_2)\ k32\_sin\_cos)\ k32\_sin\_cos)\wedge((\neg r1\_xxreal\_0\ (k8\_real\_1\ np\_\_2\ k32\_sin\_cos)\ (k8\_real\_1\ (k10\_real\_1\ np\_\_3\ np\_\_2)\ k32\_sin\_cos))\wedge(\neg r1\_xxreal\_0\ (k8\_real\_1\ (k10\_real\_1\ np\_\_3\ np\_\_2)\ k32\_sin\_cos)\ k6\_numbers))))))))) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xxreal\_0\ X1)\Rightarrow(((r1\_xxreal\_0\ X0\ X1)\wedge(r1\_xxreal\_0\ X1\ X0))\Rightarrow(X0 = X1))) \tag{9}$$

Assume the following.

$$v1\_xboole\_0\ np\_\_0 \tag{10}$$

Assume the following.

$$r1\_xxreal\_0\ np\_\_0\ np\_\_0 \tag{11}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{12}$$

Assume the following.

$$k32\_sin\_cos = k31\_sin\_cos \tag{13}$$

Assume the following.

$$\exists X0.(v1\_xboole\_0\ X0)\wedge((v1\_xcmplx\_0\ X0)\wedge((v1\_xxreal\_0\ X0)\wedge(v1\_xreal\_0\ X0))) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_xcmplx\_0\ X0)\wedge((v1\_xcmplx\_0\ X1)\wedge(v1\_xcmplx\_0\ X2)))\Rightarrow(v1\_xreal\_0\ (k4\_complex2\ X0\ X1\ X2)) \tag{15}$$

Assume the following.

$$v1\_xreal\_0\ k31\_sin\_cos \tag{16}$$

Assume the following.

$$\forall X0.((v1\_xxreal\_0\ X0)\wedge(v3\_xxreal\_0\ X0))\Rightarrow((\neg v1\_xboole\_0\ X0)\wedge((v1\_xxreal\_0\ X0)\wedge(\neg v2\_xxreal\_0\ X0))) \tag{17}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xxreal\_0\ X0) \tag{18}$$

Assume the following.

$$\forall X0.((v1\_xxreal\_0\ X0)\wedge(v2\_xxreal\_0\ X0))\Rightarrow((\neg v1\_xboole\_0\ X0)\wedge((v1\_xxreal\_0\ X0)\wedge(\neg v3\_xxreal\_0\ X0))) \tag{19}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{20}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k2\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k2\_numbers)\Rightarrow(\neg(X0\neq X1)\wedge((X0\neq X2)\wedge((X1\neq X2)\wedge((k4\_complex2\ X0\ X1\ X2 = k6\_numbers)\wedge((\neg(k4\_complex2\ X1\ X2\ X0 = k6\_numbers)\wedge(k4\_complex2\ X2\ X0\ X1 = k32\_sin\_cos))\wedge(\neg(k4\_complex2\ X1\ X2\ X0 = k32\_sin\_cos)\wedge(k4\_complex2\ X2\ X0\ X1 = k6\_numbers))))))))$$