t39_flang_2 (TMNTck-BXk859nFRjmrA4RjUHWsrAVxP91dW)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k8\_afinsq\_1 : \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k6\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_flang\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1\_xboole\_0 : \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k3\_catalan2 : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X0)))\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow(\forall X3.(v7\_ordinal1\ X3)\Rightarrow(\forall X4.(v7\_ordinal1\ X4)\Rightarrow(\forall X5.(v7\_ordinal1\ X5)\Rightarrow(((r1\_xxreal\_0\ X2\ X3)\wedge(r1\_xxreal\_0\ X4\ X5))\Rightarrow(k6\_flang\_1\ X0\ (k1\_flang\_2\ X0\ X1\ X2\ X3)\ (k1\_flang\_2\ X0\ X1\ X4\ X5) = k1\_flang\_2\ X0\ X1\ (k2\_xcmplx\_0\ X2\ X4)\ (k2\_xcmplx\_0\ X3\ X5)))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X0)))\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow(\forall X3.(v7\_ordinal1\ X3)\Rightarrow((k1\_flang\_2\ X0\ X1\ X2\ X3 = k1\_xboole\_0)\Leftrightarrow(\neg(r1\_xxreal\_0\ X2\ X3)\wedge(\neg(\neg r1\_xxreal\_0\ X2\ k6\_numbers)\wedge(X1 = k1\_xboole\_0)))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0)))\Rightarrow((k6\_flang\_1\ X0\ X1\ X2 = k1\_xboole\_0)\Leftrightarrow((X1 = k1\_xboole\_0)\vee(X2 = k1\_xboole\_0)))) \tag{3}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{4}$$

Assume the following.

$$\forall X0.k3\_catalan2\ X0 = k8\_afinsq\_1\ X0 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X0)))\wedge((v7\_ordinal1\ X2)\wedge(v7\_ordinal1\ X3)))\Rightarrow(m1\_subset\_1\ (k1\_flang\_2\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(k2\_xcmplx\_0\ X0\ X1 = k2\_xcmplx\_0\ X1\ X0) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{8}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xreal\_0\ X0) \tag{9}$$

Theorem 1

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X0)))\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow(\forall X3.(v7\_ordinal1\ X3)\Rightarrow(\forall X4.(v7\_ordinal1\ X4)\Rightarrow(\forall X5.(v7\_ordinal1\ X5)\Rightarrow(k6\_flang\_1\ X0\ (k1\_flang\_2\ X0\ X1\ X2\ X3)\ (k1\_flang\_2\ X0\ X1\ X4\ X5) = k6\_flang\_1\ X0\ (k1\_flang\_2\ X0\ X1\ X4\ X5)\ (k1\_flang\_2\ X0\ X1\ X2\ X3))))))$$