l23_scmpds_9 (TMWAfcmY6huDDa2oo496kQ4aRsmC5vBDoW1)

October 27, 2020

Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18\_complex1 : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (r1\_xxreal\_0\ k6\_numbers\ (k3\_xcmplx\_0\ X0\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\neg(\neg r1\_xxreal\_0\ X1\ (k4\_xcmplx\_0\ X0)) \wedge (r1\_xxreal\_0\ (k2\_xcmplx\_0\ X1\ X0)\ k6\_numbers))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (((r1\_xxreal\_0\ (k4\_xcmplx\_0\ X0)\ X1) \wedge (r1\_xxreal\_0\ X1\ X0)) \Leftrightarrow (r1\_xxreal\_0\ (k18\_complex1\ X1)\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((\neg(\neg r1\_xxreal\_0\ k6\_numbers\ X0) \wedge (r1\_xxreal\_0\ (k4\_xcmplx\_0\ X0)\ k6\_numbers)) \wedge (\neg(\neg r1\_xxreal\_0\ (k4\_xcmplx\_0\ X0)\ k6\_numbers) \wedge (r1\_xxreal\_0\ k6\_numbers\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow (r1\_xxreal\_0\ (k6\_xcmplx\_0\ X0\ X1)\ k6\_numbers))) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\neg(\neg r1\_xxreal\_0\ X0\ k6\_numbers) \wedge (r1\_xxreal\_0\ X1\ (k6\_xcmplx\_0\ X1\ X0)))) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\forall X2.\ (v1\_xreal\_0\ X2)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X0\ k6\_numbers)\wedge((r1\_xxreal\_0\ X1\ X2)\wedge(r1\_xxreal\_0\ (k2\_xcmplx\_0\ X0\ X2)\ X1))))) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow((r1\_xxreal\_0\ X0\ k6\_numbers)\Rightarrow(k18\_complex1\ X0 = k4\_xcmplx\_0\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k3\_xcmplx\_0\ X0\ k6\_numbers = k6\_numbers) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow((X0 = k6\_numbers)\Leftrightarrow(k18\_complex1\ X0 = k6\_numbers)) \tag{10}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(\forall X1.(v1\_xcmplx\_0\ X1)\Rightarrow(X0 = k2\_xcmplx\_0\ (k6\_xcmplx\_0\ X0\ X1)\ X1)) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow((r1\_xxreal\_0\ (k4\_xcmplx\_0\ X0)\ X1)\Rightarrow(r1\_xxreal\_0\ (k4\_xcmplx\_0\ X1)\ X0))) \tag{12}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(\forall X1.(v1\_xcmplx\_0\ X1)\Rightarrow(X0 = k6\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)\ X1)) \tag{13}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow((r1\_xxreal\_0\ X0\ X1)\Leftrightarrow(r1\_xxreal\_0\ (k4\_xcmplx\_0\ X1)\ (k4\_xcmplx\_0\ X0)))) \tag{14}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\forall X2.\ (v1\_xreal\_0\ X2)\Rightarrow((r1\_xxreal\_0\ X0\ (k2\_xcmplx\_0\ X1\ X2))\Leftrightarrow(r1\_xxreal\_0\ (k6\_xcmplx\_0\ X0\ X1)\ X2)))) \tag{15}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(((\neg r1\_xxreal\_0\ X1\ (k4\_xcmplx\_0\ X0))\wedge(\neg r1\_xxreal\_0\ X0\ X1))\Leftrightarrow(\neg r1\_xxreal\_0\ X0\ (k18\_complex1\ X1)))) \tag{16}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k2\_xcmplx\_0\ X0\ k6\_numbers = X0) \tag{17}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\neg (r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ (k2\_xcmplx\_0\ X1\ np\_\_1)\ X0))) \tag{18}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow ((k4\_xcmplx\_0\ X0 = k6\_numbers) \Rightarrow (X0 = k6\_numbers)) \tag{19}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\neg (\neg r1\_xxreal\_0\ X0\ k6\_numbers) \wedge ((\neg r1\_xxreal\_0\ k6\_numbers\ X1) \wedge (r1\_xxreal\_0\ k6\_numbers\ (k3\_xcmplx\_0\ X0\ X1))))) \tag{20}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (k18\_complex1\ (k6\_xcmplx\_0\ X0\ X1) = k18\_complex1\ (k6\_xcmplx\_0\ X1\ X0))) \tag{21}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k6\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)\ (k4\_xcmplx\_0\ X1) = k6\_xcmplx\_0\ X1\ X0) \tag{22}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k2\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)\ (k4\_xcmplx\_0\ X1) = k4\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)) \tag{23}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_xcmplx\_0\ X0) \wedge ((v1\_xcmplx\_0\ X1) \wedge (v1\_xcmplx\_0\ X2))) \Rightarrow (k2\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)\ X2 = k2\_xcmplx\_0\ X0\ (k2\_xcmplx\_0\ X1\ X2)) \tag{24}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k2\_xcmplx\_0\ X0\ (k4\_xcmplx\_0\ X1) = k6\_xcmplx\_0\ X0\ X1) \tag{25}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X1\ X0)) \Rightarrow (X0 = X1))) \tag{26}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X1\ X0)\wedge(r1\_xxreal\_0\ k6\_numbers\ (k6\_xcmplx\_0\ X0\ X1)))) \tag{27}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X1\ X0)\wedge(r1\_xxreal\_0\ (k6\_xcmplx\_0\ X1\ X0)\ k6\_numbers))) \tag{28}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\forall X2.(v1\_xreal\_0\ X2)\Rightarrow((r1\_xxreal\_0\ X0\ X1)\Rightarrow((r1\_xxreal\_0\ X2\ k6\_numbers)\vee((\neg r1\_xxreal\_0\ (k2\_xcmplx\_0\ X1\ X2)\ X0)\wedge(\neg r1\_xxreal\_0\ X1\ (k6\_xcmplx\_0\ X0\ X2)))))))) \tag{29}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k4\_xcmplx\_0\ (k4\_xcmplx\_0\ X0) = X0) \tag{30}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(v1\_xreal\_0\ (k6\_xcmplx\_0\ X0\ X1)) \tag{31}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(v1\_xreal\_0\ (k2\_xcmplx\_0\ X0\ X1)) \tag{32}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow((v1\_xcmplx\_0\ (k4\_xcmplx\_0\ X0))\wedge(v1\_xreal\_0\ (k4\_xcmplx\_0\ X0))) \tag{33}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(v1\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)) \tag{34}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)) \tag{35}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(m1\_subset\_1\ (k18\_complex1\ X0)\ k1\_numbers) \tag{36}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(\forall X1.(v1\_xcmplx\_0\ X1)\Rightarrow((X1 = k4\_xcmplx\_0\ X0)\Leftrightarrow(k2\_xcmplx\_0\ X0\ X1 = k6\_numbers))) \tag{37}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(k2\_xcmplx\_0\ X0\ X1 = k2\_xcmplx\_0\ X1\ X0) \tag{38}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{39}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{40}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{41}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X0\ k6\_numbers)\wedge(k2\_xcmplx\_0\ (k2\_xcmplx\_0\ (k18\_complex1\ X1)\ X0)\ np\_\_1 = k4\_xcmplx\_0\ (k2\_xcmplx\_0\ (k2\_xcmplx\_0\ (k2\_xcmplx\_0\ (k18\_complex1\ X1)\ X0)\ X0)\ X1))))$$