t23_int_1 (TMMPG86nnyZkArd2ssqmHH6T9UrPdfXFU8s)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $v1\_int\_1 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k3\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow ((\neg r1\_xxreal\_0\ X1\ X0) \Rightarrow (r1\_xxreal\_0\ (k3\_real\_1\ X0\ np\_\_1)\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((v1\_int\_1\ X0) \Rightarrow ((v1\_int\_1\ (k3\_real\_1\ X0\ np\_\_1)) \wedge (v1\_int\_1\ (k5\_real\_1\ X0\ np\_\_1)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (m1\_subset\_1\ X1\ k1\_numbers)) \Rightarrow (k5\_real\_1\ X0\ X1 = k6\_xcmplx\_0\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (m1\_subset\_1\ X1\ k1\_numbers)) \Rightarrow (k3\_real\_1\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\forall X2.(v1\_xreal\_0\ X2) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X1\ X2)) \Rightarrow (r1\_xxreal\_0\ X0\ X2)))) \tag{5}$$

Assume the following.

$$m1\_subset\_1\ np\_\_1\ k1\_numbers \tag{6}$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(((r1\_xxreal\_0\ X0\ X1)\wedge(r1\_xxreal\_0\ X1\ X0))\Rightarrow(X0 = X1))) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0)\Rightarrow(v1\_xreal\_0\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{10}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_int\_1\ X1)\Rightarrow(\forall X2.(v1\_int\_1\ X2)\Rightarrow(((r1\_xxreal\_0\ X1\ X0)\wedge(r1\_xxreal\_0\ X2\ X0))\Rightarrow((r1\_xxreal\_0\ X1\ (k5\_real\_1\ X0\ np\_\_1))\vee((r1\_xxreal\_0\ X2\ (k5\_real\_1\ X0\ np\_\_1))\vee(X1 = X2))))))$$