t22_int_4 (TMQQ2rQHeQeH3QKWpcVqA2oKyT4afxWohAg)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Let $k6\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_nat\_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_int\_1 : \iota \Rightarrow o$ be given. Let $r2\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_int\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow (\forall X2.\ (v1\_int\_1\ X2) \Rightarrow (((k6\_int\_1\ X1\ X0 = k6\_int\_1\ X2\ X0) \Rightarrow ((X0 = k6\_numbers) \vee (r2\_int\_1\ X1\ X2\ X0))) \wedge ((r2\_int\_1\ X1\ X2\ X0) \Rightarrow (k6\_int\_1\ X1\ X0 = k6\_int\_1\ X2\ X0))))) \tag{1}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((\neg r1\_xxreal\_0\ X0\ k6\_numbers) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow ((k6\_int\_1\ X1\ X0 = k6\_numbers) \Leftrightarrow (r1\_int\_1\ X0\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0) \wedge (v7\_ordinal1\ X1)) \Rightarrow (k4\_nat\_d\ X0\ X1 = k6\_int\_1\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow (\forall X2.\ (v1\_int\_1\ X2) \Rightarrow ((k6\_int\_1\ X0\ X1 = k6\_int\_1\ X2\ X1) \Rightarrow (k6\_int\_1\ (k6\_xcmplx\_0\ X0\ X2)\ X1 = k6\_numbers)))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_int\_1\ X0) \wedge (v1\_int\_1\ X1)) \Rightarrow (v1\_int\_1\ (k6\_xcmplx\_0\ X0\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0)\Rightarrow(\forall X1.(v1\_int\_1\ X1)\Rightarrow(\forall X2.\ (v1\_int\_1\ X2)\Rightarrow((r2\_int\_1\ X0\ X1\ X2)\Leftrightarrow(r1\_int\_1\ X2\ (k6\_xcmplx\_0\ X0\ X1))))) \tag{6}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_int\_1\ X0) \tag{7}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\forall X2.\ (v7\_ordinal1\ X2)\Rightarrow((\neg r1\_xxreal\_0\ X2\ k6\_numbers)\Rightarrow((k6\_int\_1\ (\ k6\_xcmplx\_0\ X0\ X1)\ X2 = k6\_numbers)\Leftrightarrow(k4\_nat\_d\ X0\ X2 = k4\_nat\_d\ X1\ X2)))))$$