t5_complex2 (TMYoFjCNk7274ExZonLayaGAebo9QLcgzdN)

October 27, 2020

Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k18\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k5\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32\_sin\_cos : \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $k17\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k21\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k20\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_sin\_cos : \iota$ be given. Let $k1\_real\_1 : \iota \Rightarrow \iota$ be given. Let $k19\_sin\_cos : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((k1\_seq\_1\ k16\_sin\_cos\ (k5\_real\_1\ X0\ k32\_sin\_cos) = k1\_real\_1\ (k1\_seq\_1\ k16\_sin\_cos\ X0)) \wedge (k1\_seq\_1\ k19\_sin\_cos\ (k5\_real\_1\ X0\ k32\_sin\_cos) = k1\_real\_1\ (k1\_seq\_1\ k19\_sin\_cos\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (k21\_sin\_cos\ X0 = k20\_sin\_cos\ X0) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (k1\_real\_1\ X0 = k4\_xcmplx\_0\ X0) \tag{4}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (k18\_sin\_cos\ X0 = k17\_sin\_cos\ X0) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xreal\_0\ (k20\_sin\_cos\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xreal\_0\ (k17\_sin\_cos\ X0)) \tag{7}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (m1\_subset\_1\ X1\ k1\_numbers)) \Rightarrow (m1\_subset\_1\ (k5\_real\_1\ X0\ X1)\ k1\_numbers) \tag{9}$$

Assume the following.

$$m1\_subset\_1\ k32\_sin\_cos\ k1\_numbers \tag{10}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Leftrightarrow (X0 \in k1\_numbers) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (k20\_sin\_cos\ X0 = k1\_seq\_1\ k19\_sin\_cos\ X0) \tag{12}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (k17\_sin\_cos\ X0 = k1\_seq\_1\ k16\_sin\_cos\ X0) \tag{13}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v1\_xreal\_0\ X1)) \tag{14}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((k18\_sin\_cos\ (k5\_real\_1\ X0\ k32\_sin\_cos) = k4\_xcmplx\_0\ (k17\_sin\_cos\ X0)) \wedge (k21\_sin\_cos\ (k5\_real\_1\ X0\ k32\_sin\_cos) = k4\_xcmplx\_0\ (k20\_sin\_cos\ X0)))$$