t16_sin_cos4 (TMMQojcB6VFj3UJZHJ86SRtT44zC7cgUx7F)

October 27, 2020

Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $k20\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k21\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k18\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((k21\_sin\_cos\ k6\_numbers = np\_\_1) \wedge ((k18\_sin\_cos\ k6\_numbers = k6\_numbers) \wedge ((k20\_sin\_cos\ (k4\_xcmplx\_0\ X0) = k20\_sin\_cos\ X0) \wedge (k17\_sin\_cos\ (k4\_xcmplx\_0\ X0) = k4\_xcmplx\_0\ (k17\_sin\_cos\ X0))))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (k2\_xcmplx\_0\ (k17\_sin\_cos\ X0)\ (k17\_sin\_cos\ X1) = k3\_xcmplx\_0\ np\_\_2\ (k3\_xcmplx\_0\ (k20\_sin\_cos\ (k7\_xcmplx\_0\ (k6\_xcmplx\_0\ X0\ X1)\ np\_\_2))\ (k17\_sin\_cos\ (k7\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)\ np\_\_2))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k6\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)\ (k4\_xcmplx\_0\ X1) = k6\_xcmplx\_0\ X1\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k2\_xcmplx\_0\ X0\ (k4\_xcmplx\_0\ X1) = k6\_xcmplx\_0\ X0\ X1) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k4\_xcmplx\_0\ (k4\_xcmplx\_0\ X0) = X0) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((v1\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)) \wedge (v1\_xreal\_0\ (k4\_xcmplx\_0\ X0))) \tag{6}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow (k2\_xcmplx\_0\ X0\ X1 = k2\_xcmplx\_0\ X1\ X0) \tag{8}$$

Assume the following.

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

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (k6\_xcmplx\_0\ (k17\_sin\_cos\ X0)\ (k17\_sin\_cos\ X1) = k3\_xcmplx\_0\ np\_\_2\ (k3\_xcmplx\_0\ (k20\_sin\_cos\ (k7\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)\ np\_\_2))\ (k17\_sin\_cos\ (k7\_xcmplx\_0\ (k6\_xcmplx\_0\ X0\ X1)\ np\_\_2)))))$$