t38_sin_cos4 (TMbuFhgT-gfEtKRQ1WkBmTknSevbDEtvk5DA)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k20\_sin\_cos : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k3\_square\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (k3\_xcmplx\_0\ (k20\_sin\_cos\ X0)\ (k20\_sin\_cos\ X0) = k6\_xcmplx\_0\ np\_\_1\ (k3\_xcmplx\_0\ (k17\_sin\_cos\ X0)\ (k17\_sin\_cos\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (k3\_xcmplx\_0\ (k17\_sin\_cos\ X0)\ (k17\_sin\_cos\ X0) = k6\_xcmplx\_0\ np\_\_1\ (k3\_xcmplx\_0\ (k20\_sin\_cos\ X0)\ (k20\_sin\_cos\ X0))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (k3\_xcmplx\_0\ (k17\_sin\_cos\ (k2\_xcmplx\_0\ X0\ X1))\ (k17\_sin\_cos\ (k6\_xcmplx\_0\ X0\ X1)) = k6\_xcmplx\_0\ (k3\_xcmplx\_0\ (k17\_sin\_cos\ X0)\ (k17\_sin\_cos\ X0))\ (k3\_xcmplx\_0\ (k17\_sin\_cos\ X1)\ (k17\_sin\_cos\ X1)))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((k2\_xcmplx\_0\ (k3\_square\_1\ (k20\_sin\_cos\ X0))\ (k3\_square\_1\ (k17\_sin\_cos\ X0)) = np\_\_1) \wedge (k2\_xcmplx\_0\ (k3\_xcmplx\_0\ (k20\_sin\_cos\ X0)\ (k20\_sin\_cos\ X0))\ (k3\_xcmplx\_0\ (k17\_sin\_cos\ X0)\ (k17\_sin\_cos\ X0)) = np\_\_1)) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0\ X1) \Rightarrow (\forall X2.(v1\_xcmplx\_0\ X2) \Rightarrow (k6\_xcmplx\_0\ (k6\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)\ X2)\ X1 = k6\_xcmplx\_0\ X0\ X2))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(v1\_xreal\_0\ (k3\_xcmplx\_0\ X0\ X1)) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xreal\_0\ (k20\_sin\_cos\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xreal\_0\ (k17\_sin\_cos\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k3\_square\_1\ X0 = k3\_xcmplx\_0\ X0\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{10}$$

Theorem 1

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