

## t3\_complex2

(TMJJKBi21ymfnMeb5UmM3vWWdDhg93CpHrz)

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

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (k20\_sin\_cos \\ (k6\_xcmplx\_0 X0 X1) = k2\_xcmplx\_0 (k3\_xcmplx\_0 (k20\_sin\_cos X0) \\ (k20\_sin\_cos X1)) (k3\_xcmplx\_0 (k17\_sin\_cos X0) (k17\_sin\_cos \\ X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (k17\_sin\_cos \\ (k6\_xcmplx\_0 X0 X1) = k6\_xcmplx\_0 (k3\_xcmplx\_0 (k17\_sin\_cos X0) \\ (k20\_sin\_cos X1)) (k3\_xcmplx\_0 (k20\_sin\_cos X0) (k17\_sin\_cos \\ X1)))) \end{aligned} \quad (2)$$

### Theorem 1

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow ((k17\_sin\_cos \\ (k6\_xcmplx\_0 X0 X1) = k6\_xcmplx\_0 (k3\_xcmplx\_0 (k17\_sin\_cos X0) \\ (k20\_sin\_cos X1)) (k3\_xcmplx\_0 (k20\_sin\_cos X0) (k17\_sin\_cos \\ X1))) \wedge (k20\_sin\_cos (k6\_xcmplx\_0 X0 X1) = k2\_xcmplx\_0 (k3\_xcmplx\_0 \\ (k20\_sin\_cos X0) (k20\_sin\_cos X1)) (k3\_xcmplx\_0 (k17\_sin\_cos \\ X0) (k17\_sin\_cos X1)))))) \end{aligned}$$