

t35\_sin\_cos6 (TMVD-  
PeawW3NFn9dbDrq1G39gdgDWk47aNfE)

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k32\_sin\_cos : \iota$  be given. Let  $k20\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k31\_sin\_cos : \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (r1\_xxreal\_0 (k1\_real\_1 np\_1) (k20\_sin\_cos X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k3\_xcmplx\_0 np\_1 X0 = X0) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2.(v1\_xxreal\_0 X2) \Rightarrow (((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X2)) \Rightarrow (r1\_xxreal\_0 X0 X2)))) \quad (3)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (((r1\_xxreal\_0 k6\_numbers X0) \wedge ((r1\_xxreal\_0 X0 (k8\_real\_1 np\_2 k32\_sin\_cos)) \wedge (k20\_sin\_cos X0 = k1\_real\_1 np\_1))) \Rightarrow (X0 = k32\_sin\_cos)) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (5)$$

Assume the following.

$$((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers)) \quad (6)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 \ np\_1) \wedge (m2\_subset\_1 \ np\_1 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_1 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_1 \ k1\_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. ((m1\_subset\_1 \ X0 \ k1\_numbers) \wedge (v1\_xreal\_0 \ X1)) \Rightarrow (k8\_real\_1 \ X0 \ X1 = k3\_xcmplx\_0 \ X0 \ X1) \quad (8)$$

Assume the following.

$$k32\_sin\_cos = k31\_sin\_cos \quad (9)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 \ X0 \ k1\_numbers) \Rightarrow (k1\_real\_1 \ X0 = k4\_xcmplx\_0 \ X0) \quad (10)$$

Assume the following.

$$\neg r1\_xxreal\_0 \ (k8\_real\_1 \ np\_2 \ k32\_sin\_cos) \ (k8\_real\_1 \ np\_1 \ k32\_sin\_cos) \quad (11)$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 \ X0) \Rightarrow (v1\_xreal\_0 \ (k20\_sin\_cos \ X0)) \quad (12)$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 \ X0) \Rightarrow ((v1\_xcmplx\_0 \ (k4\_xcmplx\_0 \ X0)) \wedge (v1\_xreal\_0 \ (k4\_xcmplx\_0 \ X0))) \quad (13)$$

Assume the following.

$$v3\_membered \ k1\_numbers \quad (14)$$

Assume the following.

$$\forall X0. \forall X1. ((m1\_subset\_1 \ X0 \ k1\_numbers) \wedge (v1\_xreal\_0 \ X1)) \Rightarrow (m1\_subset\_1 \ (k8\_real\_1 \ X0 \ X1) \ k1\_numbers) \quad (15)$$

Assume the following.

$$v1\_xreal\_0 \ k31\_sin\_cos \quad (16)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_xxreal\_0 \ X0) \wedge (v1\_xxreal\_0 \ X1)) \Rightarrow (r1\_xxreal\_0 \ X0 \ X1) \vee (r1\_xxreal\_0 \ X1 \ X0) \quad (17)$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 \ X0) \Rightarrow (v1\_xxreal\_0 \ X0) \quad (18)$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(v2\_membered\ X0) \quad (19)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \quad (20)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \quad (21)$$

Assume the following.

$$\forall X0.(v2\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v1\_xreal\_0\ X1)) \quad (22)$$

**Theorem 1**

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\neg(r1\_xxreal\_0\ k6\_numbers\ X0)\wedge((\neg r1\_xxreal\_0\ k32\_sin\_cos\ X0)\wedge(r1\_xxreal\_0\ (k20\_sin\_cos\ X0)\ (k1\_real\_1\ np\_1))))$$