

t21\_sin\_cos6 (TMSgBp-  
NAz3PpHcZowCQUovdDpwJGm2X9ZNp)

October 27, 2020

Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k32\_sin\_cos : \iota$  be given. Let  $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k17\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  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  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $np\_0 : \iota$  be given. Let  $k31\_sin\_cos : \iota$  be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (\neg(\neg r1\_xxreal\_0 X0 (k7\_real\_1 k32\_sin\_cos (k8\_real\_1 (k8\_real\_1 np\_2 k32\_sin\_cos) X1))) \wedge (\neg r1\_xxreal\_0 (k7\_real\_1 (k8\_real\_1 np\_2 k32\_sin\_cos) X1)) \wedge (k8\_real\_1 (k8\_real\_1 np\_2 k32\_sin\_cos) X1)) X0) \wedge (r1\_xxreal\_0 k6\_numbers (k17\_sin\_cos X0)))) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (\neg(\neg r1\_xxreal\_0 X0 (k8\_real\_1 (k8\_real\_1 np\_2 k32\_sin\_cos) X1)) \wedge (\neg r1\_xxreal\_0 (k7\_real\_1 k32\_sin\_cos (k8\_real\_1 (k8\_real\_1 np\_2 k32\_sin\_cos) X1)) X0) \wedge (r1\_xxreal\_0 (k17\_sin\_cos X0) k6\_numbers)))) \quad (3)$$

Assume the following.

$$((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers)) \quad (4)$$

Assume the following.

$$k2\_xcmplx\_0 np\_1 (k4\_xcmplx\_0 np\_1) = np\_0 \quad (5)$$

Assume the following.

$$r1\_xxreal\_0 \ np\_0 \ np\_0 \tag{6}$$

Assume the following.

$$k32\_sin\_cos = k31\_sin\_cos \tag{7}$$

Assume the following.

$$k2\_xcmplx\_0 \ np\_1 \ (k4\_xcmplx\_0 \ np\_1) = k6\_numbers \tag{8}$$

Assume the following.

$$(v1\_xreal\_0 \ k31\_sin\_cos) \wedge (v2\_xxreal\_0 \ k31\_sin\_cos) \tag{9}$$

Assume the following.

$$\forall X0. \forall X1. ((m1\_subset\_1 \ X0 \ k1\_numbers) \wedge (v1\_xreal\_0 \ X1)) \Rightarrow (m1\_subset\_1 \ (k8\_real\_1 \ X0 \ X1) \ k1\_numbers) \tag{10}$$

Assume the following.

$$\forall X0. \forall X1. ((m1\_subset\_1 \ X0 \ k1\_numbers) \wedge (v1\_xreal\_0 \ X1)) \Rightarrow (m1\_subset\_1 \ (k7\_real\_1 \ X0 \ X1) \ k1\_numbers) \tag{11}$$

Assume the following.

$$m1\_subset\_1 \ k32\_sin\_cos \ k1\_numbers \tag{12}$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 \ X0) \Rightarrow (v1\_xxreal\_0 \ X0) \tag{13}$$

Assume the following.

$$\forall X0. (v1\_int\_1 \ X0) \Rightarrow (v1\_xreal\_0 \ X0) \tag{14}$$

Assume the following.

$$\forall X0. (m1\_subset\_1 \ X0 \ k1\_numbers) \Rightarrow (v1\_xreal\_0 \ X0) \tag{15}$$

**Theorem 1**

$$\forall X0. (v1\_xreal\_0 \ X0) \Rightarrow (\forall X1. (v1\_int\_1 \ X1) \Rightarrow (\neg(r1\_xxreal\_0 \ (k8\_real\_1 \ (k8\_real\_1 \ np\_2 \ k32\_sin\_cos) \ X1) \ X0) \wedge (\neg r1\_xxreal\_0 \ (k7\_real\_1 \ (k8\_real\_1 \ np\_2 \ k32\_sin\_cos) \ (k8\_real\_1 \ (k8\_real\_1 \ np\_2 \ k32\_sin\_cos) \ X1)) \ X0) \wedge ((k17\_sin\_cos \ X0 = k6\_numbers) \wedge ((X0 \neq k8\_real\_1 \ (k8\_real\_1 \ np\_2 \ k32\_sin\_cos) \ X1) \wedge (X0 \neq k7\_real\_1 \ k32\_sin\_cos \ (k8\_real\_1 \ (k8\_real\_1 \ np\_2 \ k32\_sin\_cos) \ X1))))))$$