

# l2\_integra8

(TMMgGcmoELpswi6JhB1RJ1aaNDgYr6i5m9Z)

October 27, 2020

Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k18\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $k10\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k32\_sin\_cos : \iota$  be given. Let  $np\_4 : \iota$  be given. Let  $k21\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $k5\_sin\_cos9 : \iota \Rightarrow \iota$  be given. Let  $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_sin\_cos9 : \iota$  be given. Let  $k20\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $k17\_sin\_cos : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  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  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_0 : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
& (k21\_sin\_cos (k10\_real\_1 k32\_sin\_cos np\_2) = k6\_numbers) \wedge (( \\
& k18\_sin\_cos (k10\_real\_1 k32\_sin\_cos np\_2) = np\_1) \wedge ((k21\_sin\_cos \\
& k32\_sin\_cos = k1\_real\_1 np\_1) \wedge ((k18\_sin\_cos k32\_sin\_cos = k6\_numbers) \wedge \\
& ((k21\_sin\_cos (k7\_real\_1 k32\_sin\_cos (k10\_real\_1 k32\_sin\_cos \\
& np\_2)) = k6\_numbers) \wedge ((k18\_sin\_cos (k7\_real\_1 k32\_sin\_cos ( \\
& k10\_real\_1 k32\_sin\_cos np\_2)) = k1\_real\_1 np\_1) \wedge ((k21\_sin\_cos \\
& (k8\_real\_1 np\_2 k32\_sin\_cos) = np\_1) \wedge (k18\_sin\_cos (k8\_real\_1 \\
& np\_2 k32\_sin\_cos) = k6\_numbers))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (v1\_xxreal\_0 X0) \Rightarrow ((\neg(\neg r1\_xxreal\_0 k6\_numbers X0) \wedge \\
& (r1\_xxreal\_0 (k4\_xcmplx\_0 X0) k6\_numbers)) \wedge (\neg(\neg r1\_xxreal\_0 \\
& (k4\_xcmplx\_0 X0) k6\_numbers) \wedge (r1\_xxreal\_0 k6\_numbers X0)))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& (k5\_sin\_cos9 np\_1 = k10\_real\_1 k32\_sin\_cos np\_4) \wedge (k1\_seq\_1 \\
& k1\_sin\_cos9 np\_1 = k10\_real\_1 k32\_sin\_cos np\_4)
\end{aligned} \tag{3}$$

Assume the following.

$$(k5\_sin\_cos9 (k1\_real\_1 np\_1) = k1\_real\_1 (k10\_real\_1 k32\_sin\_cos np\_4)) \wedge (k1\_seq\_1 k1\_sin\_cos9 (k1\_real\_1 np\_1) = k1\_real\_1 (k10\_real\_1 k32\_sin\_cos np\_4)) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow ((k21\_sin\_cos k6\_numbers = np\_1) \wedge ((k18\_sin\_cos k6\_numbers = k6\_numbers) \wedge ((k20\_sin\_cos (k4\_xcmplx\_0 X0) = k20\_sin\_cos X0) \wedge (k17\_sin\_cos (k4\_xcmplx\_0 X0) = k4\_xcmplx\_0 (k17\_sin\_cos X0)))))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (6)$$

Assume the following.

$$((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \quad (7)$$

Assume the following.

$$k2\_xcmplx\_0 np\_1 (k4\_xcmplx\_0 np\_1) = np\_0 \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (k1\_real\_1 X0 = k4\_xcmplx\_0 X0) \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (k18\_sin\_cos X0 = k17\_sin\_cos X0) \quad (10)$$

Assume the following.

$$\neg r1\_xxreal\_0 (k18\_sin\_cos (k10\_real\_1 k32\_sin\_cos np\_4)) k6\_numbers \quad (11)$$

Assume the following.

$$k2\_xcmplx\_0 np\_1 (k4\_xcmplx\_0 np\_1) = k6\_numbers \quad (12)$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (k1\_real\_1 (k1\_real\_1 X0) = X0) \quad (14)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xreal\_0 (k17\_sin\_cos X0)) \quad (15)$$

Assume the following.

$$v3\_membered k1\_numbers \quad (16)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (m1\_subset\_1 (k5\_sin\_cos9 X0) k1\_numbers) \quad (17)$$

Assume the following.

$$m1\_subset\_1 k32\_sin\_cos k1\_numbers \quad (18)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (m1\_subset\_1 (k21\_sin\_cos X0) k1\_numbers) \quad (19)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Leftrightarrow (X0 \in k1\_numbers) \quad (20)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xcmplx\_0 X0) \quad (21)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xcmplx\_0 X0) \quad (22)$$

Assume the following.

$$\forall X0.(v3\_membered X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow (v1\_xreal\_0 X1)) \quad (23)$$

**Theorem 1**

$$\neg r1\_xreal\_0 k6\_numbers (k18\_sin\_cos (k1\_real\_1 (k10\_real\_1 k32\_sin\_cos np\_4)))$$