

# l141\_toprealb (TM- Rap74mZwRDkXHreg5pGYhPnuMMjPZaUwq)

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Let  $k2\_relset.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k1\_fcont.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_real.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  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  $v1\_xboole.0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole.0 : \iota$  be given. Let  $v1\_xreal.0 : \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  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  $k5\_numbers : \iota$  be given. Let  $m1\_subset.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_0 : \iota$  be given. Let  $k31\_sin\_cos : \iota$  be given. Let  $k1\_real.1 : \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx.0 : \iota \Rightarrow \iota$  be given. Let  $c5\_toprealb : \iota$  be given. Assume the following.

$$\forall X0.(v1\_xboole.0 X0) \Rightarrow (X0 = k1\_xboole.0) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xreal.0 X0) \Rightarrow (\forall X1.(v1\_xreal.0 X1) \Rightarrow ((X0 \neq k6\_numbers) \Rightarrow (k2\_relset.1 k1\_numbers (k1\_fcont.1 X0 X1) = k1\_numbers))) \quad (2)$$

Assume the following.

$$((v2\_xxreal.0 np\_2) \wedge (m2\_subset.1 np\_2 k1\_numbers k5\_numbers)) \wedge ((m1\_subset.1 np\_2 k5\_numbers) \wedge (m1\_subset.1 np\_2 k1\_numbers)) \quad (3)$$

Assume the following.

$$(m2\_subset.1 np\_0 k1\_numbers k5\_numbers) \wedge ((m1\_subset.1 np\_0 k5\_numbers) \wedge (m1\_subset.1 np\_0 k1\_numbers)) \quad (4)$$

Assume the following.

$$v1\_xboole.0 np\_0 \quad (5)$$

Assume the following.

$$k6\_numbers = k1\_xboole.0 \quad (6)$$

Assume the following.

$$k32\_sin\_cos = k31\_sin\_cos \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (k1\_real\_1 X0 = k4\_xcmplx\_0 X0) \quad (8)$$

Assume the following.

$$k4\_xcmplx\_0 k6\_numbers = k6\_numbers \quad (9)$$

Assume the following.

$$m1\_subset\_1 np\_1 k1\_numbers \quad (10)$$

Assume the following.

$$k2\_relset\_1 k1\_numbers (k1\_fcont\_1 (k1\_real\_1 (k10\_real\_1 np\_1 (k8\_real\_1 np\_2 k32\_sin\_cos))) np\_1) = k1\_numbers \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_numbers) \wedge (v1\_xreal\_0 X1)) \Rightarrow (m1\_subset\_1 (k8\_real\_1 X0 X1) k1\_numbers) \quad (12)$$

Assume the following.

$$v1\_xreal\_0 k31\_sin\_cos \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_numbers) \wedge (v1\_xreal\_0 X1)) \Rightarrow (m1\_subset\_1 (k10\_real\_1 X0 X1) k1\_numbers) \quad (14)$$

Assume the following.

$$(v1\_xreal\_0 c5\_toprealb) \wedge (v2\_xxreal\_0 c5\_toprealb) \quad (15)$$

Assume the following.

$$c5\_toprealb = np\_1 \quad (16)$$

Assume the following.

$$k1\_xboole\_0 = the (\lambda X0 : \iota.v1\_xboole\_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (18)$$

**Theorem 1**

$$k2\_relset\_1 k1\_numbers (k1\_fcont\_1 (k10\_real\_1 np\_1 (k8\_real\_1 np\_2 k32\_sin\_cos)) np\_1) = k1\_numbers$$