

# l109\_toprealb

(TMZywncgwaznZ4DV4545DhJoiF3cp9K6HN5)

October 27, 2020

Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_toprealb : \iota \Rightarrow \iota$  be given. Let  $c25\_toprealb : \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_topalg\_2 : \iota$  be given. Let  $k1\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k2\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k3\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1\_xxreal\_0 X0) \Rightarrow (\forall X1. (v1\_xxreal\_0 X1) \Rightarrow (r1\_tarski (k2\_xxreal\_1 X0 X1) (k1\_xxreal\_1 X0 X1))) \quad (2)$$

Assume the following.

$$((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow (k3\_rcomp\_1 X0 X1 = k2\_xxreal\_1 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 k1\_numbers) \Rightarrow (k1\_real\_1 X0 = k4\_xcmplx\_0 X0) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow (k1\_rcomp\_1 X0 X1 = k1\_xxreal\_1 X0 X1) \quad (6)$$

Assume the following.

$$u1\_struct\_0 (k1\_pre\_topc\ k2\_topalg\_2 (k5\_toprealb (k1\_rcomp\_1 (k1\_real\_1\ np\_1) np\_1))) = k1\_rcomp\_1 (k1\_real\_1\ np\_1) np\_1 \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow ((v1\_xcmplx\_0 (k4\_xcmplx\_0\ X0)) \wedge (v1\_xreal\_0 (k4\_xcmplx\_0\ X0))) \quad (8)$$

Assume the following.

$$(\neg v1\_xboole\_0\ c25\_toprealb) \wedge (m1\_subset\_1\ c25\_toprealb (k1\_zfmisc\_1\ k1\_numbers)) \quad (9)$$

Assume the following.

$$c25\_toprealb = k3\_rcomp\_1 (k1\_real\_1\ np\_1) np\_1 \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0 (k1\_zfmisc\_1\ k1\_numbers)) \Rightarrow (k5\_toprealb\ X0 = X0) \quad (11)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xxreal\_0\ X0) \quad (12)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (v1\_xreal\_0\ X0) \quad (13)$$

**Theorem 1**

$$m1\_subset\_1 (k5\_toprealb\ c25\_toprealb) (k1\_zfmisc\_1 (u1\_struct\_0 (k1\_pre\_topc\ k2\_topalg\_2 (k5\_toprealb (k1\_rcomp\_1 (k1\_real\_1\ np\_1) np\_1))))))$$