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Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k15\_euclid : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k19\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_sppol\_1 : \iota \Rightarrow o$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  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  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (((v1\_sppol\_1 (k1\_rltopsp1 (k15\_euclid np\_2) X0 X1)) \wedge ((v1\_sppol\_1 \\ & (k1\_rltopsp1 (k15\_euclid np\_2) X2 X3)) \wedge ((k18\_euclid X0 = k18\_euclid \\ & X2) \wedge ((r1\_xxreal\_0 (k17\_euclid X0) (k17\_euclid X2)) \wedge ((r1\_xxreal\_0 \\ & (k17\_euclid X2) (k17\_euclid X3)) \wedge (r1\_xxreal\_0 (k17\_euclid X3) \\ & (k17\_euclid X1)))))) \Rightarrow (r1\_tarski (k1\_rltopsp1 (k15\_euclid np\_2) \\ & X2 X3) (k1\_rltopsp1 (k15\_euclid np\_2) X0 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_3) \wedge (m2\_subset\_1 np\_3 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_3 k5\_numbers) \wedge (m1\_subset\_1 np\_3 k1\_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (5)$$

Assume the following.

$$\exists X0.(v1\_xboole\_0 X0) \wedge ((v1\_xcmplx\_0 X0) \wedge ((v1\_xxreal\_0 X0) \wedge (v1\_xreal\_0 X0))) \quad (6)$$

Assume the following.

$$r1\_xxreal\_0 (k17\_euclid (k19\_euclid k6\_numbers (k1\_real\_1 np\_3))) \quad (7)$$

Assume the following.

$$r1\_xxreal\_0 (k17\_euclid (k19\_euclid (k1\_real\_1 np\_1) (k1\_real\_1 np\_3))) \quad (8)$$

Assume the following.

$$v1\_sppol\_1 (k1\_rltopsp1 (k15\_euclid np\_2) (k19\_euclid (k1\_real\_1 np\_1) (k1\_real\_1 np\_3))) \quad (9)$$

Assume the following.

$$v1\_sppol\_1 (k1\_rltopsp1 (k15\_euclid np\_2) (k19\_euclid (k1\_real\_1 np\_1) (k1\_real\_1 np\_3))) \quad (10)$$

Assume the following.

$$k17\_euclid (k19\_euclid (k1\_real\_1 np\_1) (k1\_real\_1 np\_3)) = k1\_real\_1 np\_1 \quad (11)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (m1\_subset\_1 (k1\_real\_1 X0) k1\_numbers) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow (m1\_subset\_1 (k19\_euclid X0 X1) (u1\_struct\_0 (k15\_euclid np\_2))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow ((r1\_xxreal\_0 X0 X1) \vee (r1\_xxreal\_0 X1 X0)) \quad (14)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \quad (15)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (16)$$

**Theorem 1**

*r1\_tarski (k1\_rltopsp1 (k15\_euclid np\_2) (k19\_euclid (k1\_real\_1  
np\_1) (k1\_real\_1 np\_3)) (k19\_euclid k6\_numbers (k1\_real\_1 np\_3)))  
(k1\_rltopsp1 (k15\_euclid np\_2) (k19\_euclid (k1\_real\_1 np\_1)  
(k1\_real\_1 np\_3)) (k19\_euclid np\_1 (k1\_real\_1 np\_3)))*