

# t13\_rcomp\_3 (TMPkRk- bud8Bn7AJSKKZJHyP8dyyShTk1Ff2)

October 27, 2020

Let  $v5\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $v6\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $k4\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $k1\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $k1\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $k3\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $k2\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v4\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $v3\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1\_xboole\_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v2\_membered X0) \Rightarrow (r1\_tarski X0 (k1\_xxreal\_1 (k2\_xxreal\_2 X0) (k1\_xxreal\_2 X0))) \quad (2)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow (k5\_seq\_4 X0 = k3\_seq\_4 X0) \quad (3)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow (k4\_seq\_4 X0 = k2\_seq\_4 X0) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow (k1\_rcomp\_1 X0 X1 = k1\_xxreal\_1 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0. ((\neg v1\_xboole\_0 X0) \wedge ((v3\_membered X0) \wedge (v4\_xxreal\_2 X0))) \Rightarrow (k2\_seq\_4 X0 = k1\_xxreal\_2 X0) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v3\_membered X0) \wedge (v3\_xxreal\_2 X0))) \Rightarrow (k3\_seq\_4 X0 = k2\_xxreal\_2 X0) \quad (7)$$

Assume the following.

$$\forall X0.(v3\_membered X0) \Rightarrow (v1\_xreal\_0 (k3\_seq\_4 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(v3\_membered X0) \Rightarrow (v1\_xreal\_0 (k2\_seq\_4 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow ((v6\_xxreal\_2 X0) \Leftrightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2.(v1\_xxreal\_0 X2) \Rightarrow (((X1 \in X0) \wedge (X2 \in X0)) \Rightarrow (r1\_tarski (k1\_xxreal\_1 X1 X2) X0)))))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow (v3\_membered X0) \quad (12)$$

Assume the following.

$$\forall X0.((v2\_membered X0) \wedge (v5\_xxreal\_2 X0)) \Rightarrow ((v2\_membered X0) \wedge ((v3\_xxreal\_2 X0) \wedge (v4\_xxreal\_2 X0))) \quad (13)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \quad (14)$$

Assume the following.

$$\forall X0.(v3\_membered X0) \Rightarrow (v2\_membered X0) \quad (15)$$

**Theorem 1**

$$\forall X0.((v5\_xxreal\_2 X0) \wedge ((v6\_xxreal\_2 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow (((k5\_seq\_4 X0 \in X0) \wedge (k4\_seq\_4 X0 \in X0)) \Rightarrow (X0 = k1\_rcomp\_1 (k5\_seq\_4 X0) (k4\_seq\_4 X0)))$$