

t19\_rcomp\_1  
(TMdR5NHsdYf63hsv93Q3A2T2SFXfwDQMSp8)

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Let  $v3\_rcomp\_1 : \iota \Rightarrow o$  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  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v3\_rcomp\_1 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers))) \Rightarrow \\ (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\neg(X1 \in X0) \wedge (\forall X2.(m1\_rcomp\_1 \\ X2 X1) \Rightarrow (\neg r1\_tarski X2 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(m1\_rcomp\_1 X1 X0) \Rightarrow (m1\_subset\_1 \\ X1 (k1\_zfmisc\_1 k1\_numbers))) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ k1\_numbers)) \Rightarrow ((m1\_rcomp\_1 X1 X0) \Leftrightarrow (\exists X2.(v1\_xreal\_0 X2) \wedge \\ ((\neg r1\_xxreal\_0 X2 k6\_numbers) \wedge (X1 = k2\_rcomp\_1 (k6\_xcmplx\_0 X0 \\ X2) (k2\_xcmplx\_0 X0 X2)))))) \end{aligned} \quad (3)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v3\_rcomp\_1 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers))) \Rightarrow \\ (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\neg(X1 \in X0) \wedge (\forall X2.(v1\_xreal\_0 \\ X2) \Rightarrow (\neg(\neg r1\_xxreal\_0 X2 k6\_numbers) \wedge (r1\_tarski (k2\_rcomp\_1 ( \\ k6\_xcmplx\_0 X1 X2) (k2\_xcmplx\_0 X1 X2)) X0)))))) \end{aligned}$$