

## t57\_rpr\_1

(TMGFCJ6WDTeqNJKzGxaSeF6mrq1bWwnDW4J)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_rpr\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_rpr\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (\neg (k3\_xcmplx\_0 X0 X1 = k6\_numbers) \wedge ((X0 \neq k6\_numbers) \wedge (X1 \neq k6\_numbers)))) \quad (1)$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0 X0) \wedge (v1\_finset\_1 X0)) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)) \Rightarrow ((r1\_xboole\_0 X1 X2) \Rightarrow (k1\_rpr\_1 X0 (k9\_subset\_1 X0 X1 X2) = k6\_numbers)))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_numbers) \wedge (v1\_xreal\_0 X1)) \Rightarrow (k8\_real\_1 X0 X1 = k3\_xcmplx\_0 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_finset\_1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))) \Rightarrow (m1\_subset\_1 (k1\_rpr\_1 X0 X1) k1\_numbers) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_finset\_1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)) \Rightarrow ((r1\_rpr\_1 X0 X1 X2) \Leftrightarrow (k1\_rpr\_1 X0 (k9\_subset\_1 X0 X1 X2) = k8\_real\_1 (k1\_rpr\_1 X0 X1) (k1\_rpr\_1 X0 X2)))) \quad (5)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0)\Rightarrow(v1\_xcmplx\_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers)\Rightarrow(v1\_xreal\_0 X0) \quad (7)$$

**Theorem 1**

$$\begin{aligned} &\forall X0.((\neg v1\_xboole\_0 X0)\wedge(v1\_finset\_1 X0))\Rightarrow(\forall X1. \\ &(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(\forall X2.(m1\_subset\_1 X2 \\ &(k1\_zfmisc\_1 X0))\Rightarrow(\neg(r1\_xboole\_0 X1 X2)\wedge((r1\_rpr\_1 X0 X1 X2)\wedge \\ &((k1\_rpr\_1 X0 X1\neq k6\_numbers)\wedge(k1\_rpr\_1 X0 X2\neq k6\_numbers)))))) \end{aligned}$$