

159\_wsierp\_1 (TMR-  
taZ8Auyr7yR8pJJg8XRmnNojAAahUbMr)

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Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $k6\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v3\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_square\_1 : \iota \Rightarrow \iota$  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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_0 : \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v1\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\neg(\neg r1\_xreal\_0 X0 X1) \wedge ((\neg v3\_xxreal\_0 X1) \wedge (\neg v2\_xxreal\_0 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k3\_xcmplx\_0 X0 \ k6\_numbers = k6\_numbers) \quad (3)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\neg(r1\_xxreal\_0 k6\_numbers X0) \wedge ((\neg r1\_xxreal\_0 X1 X0) \wedge (r1\_xxreal\_0 (k6\_square\_1 X1) (k6\_square\_1 X0)))))) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (((r1\_xxreal\_0 X0 X1) \wedge (v2\_xxreal\_0 X0)) \Rightarrow (v2\_xxreal\_0 X1))) \quad (5)$$

Assume the following.

$$k7\_square\_1 \ np\_1 = np\_1 \quad (6)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\neg(\neg r1\_xxreal\_0 X0 np\_1) \wedge (r1\_xxreal\_0 (k3\_square\_1 X0) X0)) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\neg(\neg r1\_xxreal\_0 X0 k6\_numbers) \wedge (\neg r1\_xxreal\_0 np\_1 X0) \wedge (r1\_xxreal\_0 X0 (k3\_square\_1 X0))) \quad (8)$$

Assume the following.

$$((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \quad (9)$$

Assume the following.

$$(m2\_subset\_1 np\_0 k1\_numbers k5\_numbers) \wedge ((m1\_subset\_1 np\_0 k5\_numbers) \wedge (m1\_subset\_1 np\_0 k1\_numbers)) \quad (10)$$

Assume the following.

$$v1\_xboole\_0 np\_0 \quad (11)$$

Assume the following.

$$k4\_xcmplx\_0 np\_0 = np\_0 \quad (12)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (k7\_square\_1 X0 = k6\_square\_1 X0) \quad (13)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (14)$$

Assume the following.

$$\forall X0.((\neg v3\_xxreal\_0 X0) \wedge (v1\_xreal\_0 X0)) \Rightarrow ((v1\_xcmplx\_0 (k4\_xcmplx\_0 X0)) \wedge (\neg v2\_xxreal\_0 (k4\_xcmplx\_0 X0))) \quad (15)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xreal\_0 (k6\_square\_1 X0)) \quad (16)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (17)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow ((r1\_xxreal\_0 k6\_numbers X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow ((X1 = k6\_square\_1 X0) \Leftrightarrow ((r1\_xxreal\_0 k6\_numbers X1) \wedge (k3\_square\_1 X1 = X0)))))) \quad (18)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k3\_square\_1 X0 = k3\_xcmplx\_0 X0 X0) \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (r1\_xxreal\_0 X0 X1) \vee (r1\_xxreal\_0 X1 X0) \quad (20)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow (v3\_membered X0) \quad (21)$$

Assume the following.

$$\forall X0.(v3\_membered X0) \Rightarrow (v1\_membered X0) \quad (22)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \quad (23)$$

Assume the following.

$$\forall X0.(v1\_int\_1 X0) \Rightarrow (v1\_xreal\_0 X0) \quad (24)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\neg v3\_xxreal\_0 X0) \quad (25)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (26)$$

Assume the following.

$$\forall X0.(v1\_membered X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow (v1\_xcmplx\_0 X1)) \quad (27)$$

**Theorem 1**

$$\forall X0.(v1\_int\_1 X0) \Rightarrow (((\neg r1\_xxreal\_0 X0 np\_1) \Rightarrow ((\neg r1\_xxreal\_0 (k6\_square\_1 X0) np\_1) \wedge (\neg r1\_xxreal\_0 X0 (k6\_square\_1 X0)))) \wedge (\neg (\neg r1\_xxreal\_0 X0 k6\_numbers) \wedge ((\neg r1\_xxreal\_0 np\_1 X0) \wedge (\neg \neg r1\_xxreal\_0 (k6\_square\_1 X0) k6\_numbers) \wedge ((\neg r1\_xxreal\_0 np\_1 (k6\_square\_1 X0)) \wedge (\neg r1\_xxreal\_0 (k6\_square\_1 X0) X0))))))$$