

119\_xxreal\_3 (TMdMgom-  
NgXDZchZEV4vWG3c49xyyb8XGZ87)

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Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k2\_xxreal\_3 : \iota \Rightarrow \iota$  be given. Let  $k1\_xxreal\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_0 : \iota$  be given. Let  $k1\_xxreal\_0 : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Assume the following.

$$k2\_xxreal\_3 \ k2\_xxreal\_0 = k1\_xxreal\_0 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1\_subset\_1 \ X0 \ X1) \quad (2)$$

Assume the following.

$$\forall X0. (v1\_xxreal\_0 \ X0) \Rightarrow (k2\_xxreal\_3 \ (k2\_xxreal\_3 \ X0) = X0) \quad (3)$$

Assume the following.

$$v1\_xxreal\_0 \ k2\_xxreal\_0 \quad (4)$$

Assume the following.

$$\neg v1\_xreal\_0 \ k1\_xxreal\_0 \quad (5)$$

Assume the following.

$$v1\_xxreal\_0 \ k1\_xxreal\_0 \quad (6)$$

Assume the following.

$$\forall X0. (v1\_xxreal\_0 \ X0) \Rightarrow (v1\_xreal\_0 \ (k2\_xxreal\_3 \ X0)) \quad (7)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\
& (v1\_xxreal\_0 X2) \Rightarrow (((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow ((X2 = \\
& k1\_xxreal\_3 X0 X1) \Leftrightarrow (\exists X3.(v1\_xcmplx\_0 X3) \wedge (\exists X4. \\
& (v1\_xcmplx\_0 X4) \wedge ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = k2\_xcmplx\_0 X3 X4)))))) \wedge \\
& (((((X0 = k1\_xxreal\_0) \wedge (X1 \neq k2\_xxreal\_0)) \vee ((X1 = k1\_xxreal\_0) \wedge \\
& (X0 \neq k2\_xxreal\_0))) \Rightarrow ((X2 = k1\_xxreal\_3 X0 X1) \Leftrightarrow (X2 = k1\_xxreal\_0))) \wedge \\
& (((((X0 = k2\_xxreal\_0) \wedge (X1 \neq k1\_xxreal\_0)) \vee ((X1 = k2\_xxreal\_0) \wedge \\
& (X0 \neq k1\_xxreal\_0))) \Rightarrow ((X2 = k1\_xxreal\_3 X0 X1) \Leftrightarrow (X2 = k2\_xxreal\_0))) \wedge \\
& (\neg(\neg(v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \wedge (\neg(X0 = k1\_xxreal\_0) \wedge \\
& (X1 \neq k2\_xxreal\_0)) \wedge (\neg(X1 = k1\_xxreal\_0) \wedge (X0 \neq k2\_xxreal\_0)) \wedge \\
& ((\neg(X0 = k2\_xxreal\_0) \wedge (X1 \neq k1\_xxreal\_0)) \wedge (\neg(X1 = k2\_xxreal\_0) \wedge \\
& (X0 \neq k1\_xxreal\_0)) \wedge (\neg(X2 = k1\_xxreal\_3 X0 X1) \Leftrightarrow (X2 = k6\_numbers))))))))) \\
& \tag{8}
\end{aligned}$$

Assume the following.

$$k1\_xxreal\_0 = k1\_numbers \tag{9}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \tag{10}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(v1\_xxreal\_0 X0) \Rightarrow ((X0 \in k1\_numbers) \Rightarrow (k2\_xxreal\_3 \\
& (k1\_xxreal\_3 X0 k2\_xxreal\_0) = k1\_xxreal\_3 (k2\_xxreal\_3 k2\_xxreal\_0) \\
& (k2\_xxreal\_3 X0)))
\end{aligned}$$