

# l13\_ec\_pf\_1

(TMUz7XM2E2kxiu4X9oamAbCbhPYCCgjE8ZL)

October 27, 2020

Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l3\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_group\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_laplace : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2\_struct\_0 \\ & X0) \wedge (l3\_algstr\_0 X0)) \wedge (((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 (k2\_zfmisc\_1 \\ & (u1\_struct\_0 X0) k5\_numbers) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) k5\_numbers) \\ & (u1\_struct\_0 X0)))))) \wedge ((m1\_subset\_1 X2 (u1\_struct\_0 X0)) \wedge (v7\_ordinal1 \\ & X3)))) \Rightarrow (k1\_laplace X0 X1 X2 X3 = k1\_binop\_1 X1 X2 X3) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (((\neg v2\_struct\_0 X0) \wedge (l3\_algstr\_0 X0)) \Rightarrow ((v1\_funct\_1 \\ & (k4\_group\_1 X0)) \wedge ((v1\_funct\_2 (k4\_group\_1 X0) (k2\_zfmisc\_1 ( \\ & u1\_struct\_0 X0) k5\_numbers) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 ( \\ & k4\_group\_1 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\ & X0) k5\_numbers) (u1\_struct\_0 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2\_struct\_0 \\ & X0) \wedge (l3\_algstr\_0 X0)) \wedge (((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 (k2\_zfmisc\_1 \\ & (u1\_struct\_0 X0) k5\_numbers) (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) k5\_numbers) \\ & (u1\_struct\_0 X0)))))) \wedge ((m1\_subset\_1 X2 (u1\_struct\_0 X0)) \wedge (v7\_ordinal1 \\ & X3)))) \Rightarrow (m1\_subset\_1 (k1\_laplace X0 X1 X2 X3) (u1\_struct\_0 X0)) \end{aligned} \quad (3)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l3\_algstr\_0 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (v7\_ordinal1 X2) \Rightarrow \\ & (m1\_subset\_1 (k1\_binop\_1 (k4\_group\_1 X0) X1 X2) (u1\_struct\_0 X0)))) \end{aligned}$$