

# l13\_cfdiff\_2 (TMcjVB- SxPW42mPGDV7LuUJQpapuC8dhr4QF)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_real\_ns1 : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_euclid : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k9\_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_normsp\_1 : \iota \Rightarrow o$  be given. Let  $l1\_normsp\_1 : \iota \Rightarrow o$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k5\_euclid : \iota \Rightarrow \iota$  be given. Let  $r1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_algstr\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_real\_ns1 : \iota \Rightarrow \iota$  be given. Let  $u1\_rlvect\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_real\_ns1 : \iota \Rightarrow \iota$  be given. Let  $u1\_normsp\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_real\_ns1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ (k4\_real\_ns1 X0))) \Rightarrow (\forall X2.(m2\_finseq\_2 X2 k1\_numbers (k1\_euclid \\ X0)) \Rightarrow (\forall X3.(v1\_xreal\_0 X3) \Rightarrow ((X1 = X2) \Rightarrow (k1\_rlvect\_1 (k4\_real\_ns1 \\ X0) X1 X3 = k9\_euclid X0 X2 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} ((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge \\ ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_2 X1 X0) \Rightarrow (\forall X2.(m2\_finseq\_2 \\ X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \quad (3)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 k1\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k1\_numbers) \Rightarrow (\forall X3. \\ (m2\_finseq\_2 X3 k1\_numbers (k1\_euclid np\_2)) \Rightarrow ((X3 = k10\_finseq\_1 \\ X0 X1) \Rightarrow (k9\_euclid np\_2 X3 X2 = k10\_finseq\_1 (k8\_real\_1 X2 X0) (k8\_real\_1 \\ X2 X1)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow ((\neg v2\_struct\_0 (k4\_real\_ns1 X0)) \wedge \\ ((v1\_normsp\_1 (k4\_real\_ns1 X0)) \wedge (l1\_normsp\_1 (k4\_real\_ns1 X0)))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (m1\_finseq\_2 (k1\_euclid X0) k1\_numbers) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge \\ ((v1\_normsp\_1 X1) \wedge (l1\_normsp\_1 X1))) \Rightarrow ((X1 = k4\_real\_ns1 X0) \Leftrightarrow \\ ((u1\_struct\_0 X1 = k1\_euclid X0) \wedge ((k4\_struct\_0 X1 = k5\_euclid X0) \wedge \\ ((r1\_funct\_2 (k2\_zfmisc\_1 (u1\_struct\_0 X1) (u1\_struct\_0 X1)) \\ (u1\_struct\_0 X1) (k2\_zfmisc\_1 (k1\_euclid X0) (k1\_euclid X0)) ( \\ k1\_euclid X0) (u1\_algstr\_0 X1) (k1\_real\_ns1 X0)) \wedge (r1\_funct\_2 \\ (k2\_zfmisc\_1 k1\_numbers (u1\_struct\_0 X1)) (u1\_struct\_0 X1) (k2\_zfmisc\_1 \\ k1\_numbers (k1\_euclid X0)) (k1\_euclid X0) (u1\_rlvect\_1 X1) (k2\_real\_ns1 \\ X0)) \wedge (r1\_funct\_2 (u1\_struct\_0 X1) k1\_numbers (k1\_euclid X0) k1\_numbers \\ (u1\_normsp\_0 X1) (k3\_real\_ns1 X0))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (9)$$

Assume the following.

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

**Theorem 1**

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 k1\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k1\_numbers) \Rightarrow (\forall X3. \\ (m1\_subset\_1 X3 (u1\_struct\_0 (k4\_real\_ns1 np\_2))) \Rightarrow ((X3 = k10\_finseq\_1 \\ X0 X1) \Rightarrow (k1\_rlvect\_1 (k4\_real\_ns1 np\_2) X3 X2 = k10\_finseq\_1 (k8\_real\_1 \\ X2 X0) (k8\_real\_1 X2 X1)))))) \end{aligned}$$