

# l23\_dtconstr

(TMKSivz21v2SvdRcL2btvXuUvwiMf4uK1VW)

October 27, 2020

Let  $c3\_dtconstr : \iota$  be given. Let  $k2\_lang1 : \iota \Rightarrow \iota$  be given. Let  $k5\_dtconstr : \iota$  be given. Let  $k9\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_pre\_poly : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $r1\_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $c2\_dtconstr : \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_lang1 : \iota \Rightarrow o$  be given. Let  $v1\_lang1 : \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Assume the following.

$$\forall X0. k9\_finseq\_1 X0 = k5\_finseq\_1 X0 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow (k3\_pre\_poly X0 X1 = k5\_finseq\_1 X1) \quad (2)$$

Assume the following.

$$k2\_lang1 k5\_dtconstr = ReplSep (toset (\lambda X0 : \iota. m1\_subset\_1 X0 (u1\_struct\_0 k5\_dtconstr))) (\lambda X0 : \iota. \exists X1. ((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1))) \wedge (r1\_lang1 k5\_dtconstr X0 X1)) (\lambda X0 : \iota. X0) \quad (3)$$

Assume the following.

$$r1\_lang1 k5\_dtconstr c3\_dtconstr (k3\_pre\_poly (u1\_struct\_0 k5\_dtconstr) c2\_dtconstr) \quad (4)$$

Assume the following.

$$\forall X0. v1\_finseq\_1 (k5\_finseq\_1 X0) \quad (5)$$

Assume the following.

$$\forall X0. (v1\_relat\_1 (k5\_finseq\_1 X0)) \wedge (v1\_funct\_1 (k5\_finseq\_1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow (\neg v1\_xboole\_0 (u1\_struct\_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l1\_lang1 X0) \Rightarrow (l1\_struct\_0 X0) \quad (8)$$

Assume the following.

$$(\neg v2\_struct\_0 k5\_dtconstr) \wedge ((v1\_lang1 k5\_dtconstr) \wedge (l1\_lang1 k5\_dtconstr)) \quad (9)$$

Assume the following.

$$m1\_subset\_1 c3\_dtconstr (u1\_struct\_0 k5\_dtconstr) \quad (10)$$

Assume the following.

$$m1\_subset\_1 c2\_dtconstr (u1\_struct\_0 k5\_dtconstr) \quad (11)$$

Assume the following.

$$c3\_dtconstr = np\_1 \quad (12)$$

**Theorem 1**  $c3\_dtconstr \in k2\_lang1 k5\_dtconstr$ .