l38_dist_1 (TMY-WwnUxkX3S5kjv51u1mwEwPSpdefmgHGL)

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Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_dist\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_dist\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_dist\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_finset\_1\ X0) \Rightarrow (\forall X1.(m2\_finseq\_1\ X1\ X0) \Rightarrow (\forall X2.(m2\_finseq\_1\ X2\ X0) \Rightarrow ((r1\_dist\_1\ X0\ X1\ X2) \Leftrightarrow (X2 \in k5\_dist\_1\ X0\ X1)))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0) \Rightarrow (\forall X1.(m2\_finseq\_1\ X1\ X0) \Rightarrow (\forall X2.(m2\_finseq\_1\ X2\ X0) \Rightarrow (((v1\_dist\_1\ X1\ X0) \wedge (v1\_dist\_1\ X2\ X0)) \Rightarrow (r1\_dist\_1\ X0\ X1\ X2)))) \tag{2}$$

Theorem 1

$$\forall X0.(v1\_finset\_1\ X0) \Rightarrow (\forall X1.(m2\_finseq\_1\ X1\ X0) \Rightarrow ((v1\_dist\_1\ X1\ X0) \Rightarrow (\forall X2.(m2\_finseq\_1\ X2\ X0) \Rightarrow ((v1\_dist\_1\ X2\ X0) \Rightarrow (X2 \in k5\_dist\_1\ X0\ X1)))))$$