

l37_dist_1 (TMHbah- wRqFTP32GnZvrpg91Z26B9GdFsnPW)

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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 $k5_dist_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_uproots : \iota \Rightarrow \iota$ be given. Let $v1_dist_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_dist_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_finset_1 X0) \Rightarrow (\forall X1.(m2_finseq_1 X1 X0) \Rightarrow \\ (\forall X2.(m2_finseq_1 X2 X0) \Rightarrow ((r1_dist_1 X0 X1 X2) \Leftrightarrow (X2 \in k5_dist_1 \\ X0 X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_finset_1 X0) \Rightarrow (\forall X1.(m2_finseq_1 X1 X0) \Rightarrow \\ (\forall X2.(m2_finseq_1 X2 X0) \Rightarrow (((v1_dist_1 X1 X0) \wedge (r1_dist_1 \\ X0 X1 X2)) \Rightarrow (v1_dist_1 X2 X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (v1_dist_1 (k1_uproots X0) X0) \tag{3}$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (m2_finseq_1 (k1_uproots X0) X0) \tag{4}$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_finset_1 X0) \Rightarrow (\forall X1.(m2_finseq_1 X1 X0) \Rightarrow \\ ((X1 \in k5_dist_1 X0 (k1_uproots X0)) \Rightarrow (v1_dist_1 X1 X0))) \end{aligned}$$