

t6\_dist\_1  
(TMKjoY2Pr7QyiEVB5ayLbY726ZfYeP8c8kT)

October 27, 2020

Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_dist\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_dist\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_finset\_1 X0) \Rightarrow (\forall X1.(m2\_finseq\_1 X1 X0) \Rightarrow \\ & (\forall X2.(m2\_finseq\_1 X2 X0) \Rightarrow ((r1\_dist\_1 X0 X1 X2) \Leftrightarrow (\forall X3. \\ & k3\_dist\_1 X0 X1 X3 = k3\_dist\_1 X0 X2 X3)))) \end{aligned} \quad (1)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v1\_finset\_1 X0) \Rightarrow (\forall X1.(m2\_finseq\_1 X1 X0) \Rightarrow \\ & (\forall X2.(m2\_finseq\_1 X2 X0) \Rightarrow (\forall X3.(m2\_finseq\_1 X3 X0) \Rightarrow \\ & (((r1\_dist\_1 X0 X1 X2) \wedge (r1\_dist\_1 X0 X2 X3)) \Rightarrow (r1\_dist\_1 X0 X1 X3)))))) \end{aligned}$$