

# t17\_dist\_1 (TMGYfVkiPA- jAqWo2x5hBHYHFkZY5Lo8M4YK)

October 27, 2020

Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_prob\_2 : \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_card\_3 : \iota \Rightarrow \iota$  be given. Let  $k16\_rsum\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ & X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (2)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v7\_ordinal1 X0) \Rightarrow (\forall X1. ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 \\ & X1)) \Rightarrow (\forall X2. (m2\_finseq\_1 X2 k5\_numbers) \Rightarrow (((v1\_prob\_2 X1) \wedge \\ & ((k9\_xtuple\_0 X1 = k4\_finseq\_1 X2) \wedge ((X0 = k3\_finseq\_1 X2) \wedge (\forall X3. \\ & (v7\_ordinal1 X3) \Rightarrow ((X3 \in k9\_xtuple\_0 X1) \Rightarrow ((v1\_finset\_1 (k1\_funct\_1 \\ & X1 X3)) \wedge (k1\_funct\_1 X2 X3 = k1\_card\_1 (k1\_funct\_1 X1 X3)))))) \Rightarrow \\ & ((v1\_finset\_1 (k3\_card\_3 X1)) \wedge (k1\_card\_1 (k3\_card\_3 X1) = k16\_rsum\_1 \\ & X2)))))) \end{aligned} \quad (4)$$

Assume the following.

$$(\neg v1\_xboole\_0 \ k4\_ordinal1) \wedge (v3\_ordinal1 \ k4\_ordinal1) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 \ X1 \ X0) \Rightarrow ((v1\_funct\_1 \ X1) \wedge (v1\_finseq\_1 \ X1) \wedge (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ (k2\_zfmisc\_1 \ k5\_numbers \ X0)))) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_finseq\_1 \ X1 \ X0) \Rightarrow ((v1\_relat\_1 \ X1) \wedge (v1\_funct\_1 \ X1) \wedge (v1\_finseq\_1 \ X1)) \quad (7)$$

Assume the following.

$$m1\_subset\_1 \ k5\_numbers \ (k1\_zfmisc\_1 \ k1\_numbers) \quad (8)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 \ X0) \wedge ((v1\_funct\_1 \ X0) \wedge (v1\_finseq\_1 \ X0))) \Rightarrow (m2\_subset\_1 \ (k3\_finseq\_1 \ X0) \ k1\_numbers \ k5\_numbers) \quad (9)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 \ X0 \ k4\_ordinal1) \Rightarrow (v7\_ordinal1 \ X0) \quad (10)$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 \ X0) \Rightarrow (\forall X1. (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ X0)) \Rightarrow (v1\_xboole\_0 \ X1)) \quad (11)$$

**Theorem 1**

$$\forall X0. ((v1\_relat\_1 \ X0) \wedge (v1\_funct\_1 \ X0)) \Rightarrow (\forall X1. (m2\_finseq\_1 \ X1 \ k5\_numbers) \Rightarrow (((v1\_prob\_2 \ X0) \wedge ((k9\_xtuple\_0 \ X0 = k4\_finseq\_1 \ X1) \wedge (\forall X2. (v7\_ordinal1 \ X2) \Rightarrow ((X2 \in k9\_xtuple\_0 \ X0) \Rightarrow ((v1\_finset\_1 \ (k1\_funct\_1 \ X0 \ X2)) \wedge (k1\_funct\_1 \ X1 \ X2 = k1\_card\_1 \ (k1\_funct\_1 \ X0 \ X2)))))) \Rightarrow ((v1\_finset\_1 \ (k3\_card\_3 \ X0)) \wedge (k1\_card\_1 \ (k3\_card\_3 \ X0) = k16\_rsum\_1 \ X1))))))$$