

t31\_descip\_1 (TM-  
TYeJS5Mo7v3pfy7fB6apGKxXXxxZMHaMe)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_48 : \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $np\_4 : \iota$  be given. Let  $np\_5 : \iota$  be given. Let  $np\_6 : \iota$  be given. Let  $np\_7 : \iota$  be given. Let  $np\_8 : \iota$  be given. Let  $np\_9 : \iota$  be given. Let  $np\_10 : \iota$  be given. Let  $np\_11 : \iota$  be given. Let  $np\_12 : \iota$  be given. Let  $np\_13 : \iota$  be given. Let  $np\_14 : \iota$  be given. Let  $np\_15 : \iota$  be given. Let  $np\_16 : \iota$  be given. Let  $np\_17 : \iota$  be given. Let  $np\_18 : \iota$  be given. Let  $np\_19 : \iota$  be given. Let  $np\_20 : \iota$  be given. Let  $np\_21 : \iota$  be given. Let  $np\_22 : \iota$  be given. Let  $np\_23 : \iota$  be given. Let  $np\_24 : \iota$  be given. Let  $np\_25 : \iota$  be given. Let  $np\_26 : \iota$  be given. Let  $np\_27 : \iota$  be given. Let  $np\_28 : \iota$  be given. Let  $np\_29 : \iota$  be given. Let  $np\_30 : \iota$  be given. Let  $np\_31 : \iota$  be given. Let  $np\_32 : \iota$  be given. Let  $np\_33 : \iota$  be given. Let  $np\_34 : \iota$  be given. Let  $np\_35 : \iota$  be given. Let  $np\_36 : \iota$  be given. Let  $np\_37 : \iota$  be given. Let  $np\_38 : \iota$  be given. Let  $np\_39 : \iota$  be given. Let  $np\_40 : \iota$  be given. Let  $np\_41 : \iota$  be given. Let  $np\_42 : \iota$  be given. Let  $np\_43 : \iota$  be given. Let  $np\_44 : \iota$  be given. Let  $np\_45 : \iota$  be given. Let  $np\_46 : \iota$  be given. Let  $np\_47 : \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume

the following.

$$\begin{aligned}
& \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 X0) \Rightarrow (\forall X3.(m1\_subset\_1 X3 X0) \Rightarrow \\
& (\forall X4.(m1\_subset\_1 X4 X0) \Rightarrow (\forall X5.(m1\_subset\_1 X5 X0) \Rightarrow \\
& (\forall X6.(m1\_subset\_1 X6 X0) \Rightarrow (\forall X7.(m1\_subset\_1 X7 X0) \Rightarrow \\
& (\forall X8.(m1\_subset\_1 X8 X0) \Rightarrow (\forall X9.(m1\_subset\_1 X9 X0) \Rightarrow \\
& (\forall X10.(m1\_subset\_1 X10 X0) \Rightarrow (\forall X11.(m1\_subset\_1 \\
& X11 X0) \Rightarrow (\forall X12.(m1\_subset\_1 X12 X0) \Rightarrow (\forall X13.(m1\_subset\_1 \\
& X13 X0) \Rightarrow (\forall X14.(m1\_subset\_1 X14 X0) \Rightarrow (\forall X15.(m1\_subset\_1 \\
& X15 X0) \Rightarrow (\forall X16.(m1\_subset\_1 X16 X0) \Rightarrow (\forall X17.(m1\_subset\_1 \\
& X17 X0) \Rightarrow (\forall X18.(m1\_subset\_1 X18 X0) \Rightarrow (\forall X19.(m1\_subset\_1 \\
& X19 X0) \Rightarrow (\forall X20.(m1\_subset\_1 X20 X0) \Rightarrow (\forall X21.(m1\_subset\_1 \\
& X21 X0) \Rightarrow (\forall X22.(m1\_subset\_1 X22 X0) \Rightarrow (\forall X23.(m1\_subset\_1 \\
& X23 X0) \Rightarrow (\forall X24.(m1\_subset\_1 X24 X0) \Rightarrow (\forall X25.(m1\_subset\_1 \\
& X25 X0) \Rightarrow (\forall X26.(m1\_subset\_1 X26 X0) \Rightarrow (\forall X27.(m1\_subset\_1 \\
& X27 X0) \Rightarrow (\forall X28.(m1\_subset\_1 X28 X0) \Rightarrow (\forall X29.(m1\_subset\_1 \\
& X29 X0) \Rightarrow (\forall X30.(m1\_subset\_1 X30 X0) \Rightarrow (\forall X31.(m1\_subset\_1 \\
& X31 X0) \Rightarrow (\forall X32.(m1\_subset\_1 X32 X0) \Rightarrow (\exists X33.(m2\_finseq\_1 \\
& X33 X0) \wedge ((v3\_card\_1 X33 np\_32) \wedge ((k1\_funct\_1 X33 np\_1 = X1) \wedge \\
& (k1\_funct\_1 X33 np\_2 = X2) \wedge ((k1\_funct\_1 X33 np\_3 = X3) \wedge ((k1\_funct\_1 \\
& X33 np\_4 = X4) \wedge ((k1\_funct\_1 X33 np\_5 = X5) \wedge ((k1\_funct\_1 X33 np\_6 = \\
& X6) \wedge ((k1\_funct\_1 X33 np\_7 = X7) \wedge ((k1\_funct\_1 X33 np\_8 = X8) \wedge \\
& (k1\_funct\_1 X33 np\_9 = X9) \wedge ((k1\_funct\_1 X33 np\_10 = X10) \wedge ((k1\_funct\_1 \\
& X33 np\_11 = X11) \wedge ((k1\_funct\_1 X33 np\_12 = X12) \wedge ((k1\_funct\_1 X33 \\
& np\_13 = X13) \wedge ((k1\_funct\_1 X33 np\_14 = X14) \wedge ((k1\_funct\_1 X33 np\_15 = \\
& X15) \wedge ((k1\_funct\_1 X33 np\_16 = X16) \wedge ((k1\_funct\_1 X33 np\_17 = X17) \wedge \\
& ((k1\_funct\_1 X33 np\_18 = X18) \wedge ((k1\_funct\_1 X33 np\_19 = X19) \wedge \\
& (k1\_funct\_1 X33 np\_20 = X20) \wedge ((k1\_funct\_1 X33 np\_21 = X21) \wedge (( \\
& k1\_funct\_1 X33 np\_22 = X22) \wedge ((k1\_funct\_1 X33 np\_23 = X23) \wedge ((k1\_funct\_1 \\
& X33 np\_24 = X24) \wedge ((k1\_funct\_1 X33 np\_25 = X25) \wedge ((k1\_funct\_1 X33 \\
& np\_26 = X26) \wedge ((k1\_funct\_1 X33 np\_27 = X27) \wedge ((k1\_funct\_1 X33 np\_28 = \\
& X28) \wedge ((k1\_funct\_1 X33 np\_29 = X29) \wedge ((k1\_funct\_1 X33 np\_30 = X30) \wedge \\
& ((k1\_funct\_1 X33 np\_31 = X31) \wedge (k1\_funct\_1 X33 np\_32 = X32)))))))))))))))))))))))))))))))))))))) \\
& (1)
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow \\
& (\forall X2.(m1\_subset\_1 X2 X0) \Rightarrow (\forall X3.(m1\_subset\_1 X3 X0) \Rightarrow \\
& (\forall X4.(m1\_subset\_1 X4 X0) \Rightarrow (\forall X5.(m1\_subset\_1 X5 X0) \Rightarrow \\
& (\forall X6.(m1\_subset\_1 X6 X0) \Rightarrow (\forall X7.(m1\_subset\_1 X7 X0) \Rightarrow \\
& (\forall X8.(m1\_subset\_1 X8 X0) \Rightarrow (\forall X9.(m1\_subset\_1 X9 X0) \Rightarrow \\
& (\forall X10.(m1\_subset\_1 X10 X0) \Rightarrow (\forall X11.(m1\_subset\_1 \\
& X11 X0) \Rightarrow (\forall X12.(m1\_subset\_1 X12 X0) \Rightarrow (\forall X13.(m1\_subset\_1 \\
& X13 X0) \Rightarrow (\forall X14.(m1\_subset\_1 X14 X0) \Rightarrow (\forall X15.(m1\_subset\_1 \\
& X15 X0) \Rightarrow (\forall X16.(m1\_subset\_1 X16 X0) \Rightarrow (\exists X17.(m2\_finseq\_1 \\
& X17 X0) \wedge ((v3\_card\_1 X17 np\_16) \wedge ((k1\_funct\_1 X17 np\_1 = X1) \wedge \\
& (k1\_funct\_1 X17 np\_2 = X2) \wedge (k1\_funct\_1 X17 np\_3 = X3) \wedge (k1\_funct\_1 \\
& X17 np\_4 = X4) \wedge (k1\_funct\_1 X17 np\_5 = X5) \wedge (k1\_funct\_1 X17 np\_6 = \\
& X6) \wedge (k1\_funct\_1 X17 np\_7 = X7) \wedge (k1\_funct\_1 X17 np\_8 = X8) \wedge \\
& (k1\_funct\_1 X17 np\_9 = X9) \wedge (k1\_funct\_1 X17 np\_10 = X10) \wedge (k1\_funct\_1 \\
& X17 np\_11 = X11) \wedge (k1\_funct\_1 X17 np\_12 = X12) \wedge (k1\_funct\_1 X17 \\
& np\_13 = X13) \wedge (k1\_funct\_1 X17 np\_14 = X14) \wedge (k1\_funct\_1 X17 np\_15 = \\
& X15) \wedge (k1\_funct\_1 X17 np\_16 = X16)))))))))))))))))))))))))) \\
& \hspace{15em} (2)
\end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m2\_finseq\_1 X1 X0) \Rightarrow \\
& (\forall X2. (m2\_finseq\_1 X2 X0) \Rightarrow (((v3\_card\_1 X1 np\_32) \wedge (v3\_card\_1 \\
& X2 np\_16)) \Rightarrow ((v3\_card\_1 (k8\_finseq\_1 X0 X1 X2) np\_48) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_1 = k1\_funct\_1 X1 np\_1) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_2 = k1\_funct\_1 X1 np\_2) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_3 = k1\_funct\_1 X1 np\_3) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_4 = k1\_funct\_1 X1 np\_4) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_5 = k1\_funct\_1 X1 np\_5) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_6 = k1\_funct\_1 X1 np\_6) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_7 = k1\_funct\_1 X1 np\_7) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_8 = k1\_funct\_1 X1 np\_8) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_9 = k1\_funct\_1 X1 np\_9) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_10 = k1\_funct\_1 X1 np\_10) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_11 = k1\_funct\_1 X1 np\_11) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_12 = k1\_funct\_1 X1 np\_12) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_13 = k1\_funct\_1 X1 np\_13) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_14 = k1\_funct\_1 X1 np\_14) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_15 = k1\_funct\_1 X1 np\_15) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_16 = k1\_funct\_1 X1 np\_16) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_17 = k1\_funct\_1 X1 np\_17) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_18 = k1\_funct\_1 X1 np\_18) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_19 = k1\_funct\_1 X1 np\_19) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_20 = k1\_funct\_1 X1 np\_20) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_21 = k1\_funct\_1 X1 np\_21) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_22 = k1\_funct\_1 X1 np\_22) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_23 = k1\_funct\_1 X1 np\_23) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_24 = k1\_funct\_1 X1 np\_24) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_25 = k1\_funct\_1 X1 np\_25) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_26 = k1\_funct\_1 X1 np\_26) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_27 = k1\_funct\_1 X1 np\_27) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_28 = k1\_funct\_1 X1 np\_28) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_29 = k1\_funct\_1 X1 np\_29) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_30 = k1\_funct\_1 X1 np\_30) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_31 = k1\_funct\_1 X1 np\_31) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_32 = k1\_funct\_1 X1 np\_32) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_33 = k1\_funct\_1 X2 np\_1) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_34 = k1\_funct\_1 X2 np\_2) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_35 = k1\_funct\_1 X2 np\_3) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_36 = k1\_funct\_1 X2 np\_4) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_37 = k1\_funct\_1 X2 np\_5) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_38 = k1\_funct\_1 X2 np\_6) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_39 = k1\_funct\_1 X2 np\_7) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_40 = k1\_funct\_1 X2 np\_8) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_41 = k1\_funct\_1 X2 np\_9) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_42 = k1\_funct\_1 X2 np\_10) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_43 = k1\_funct\_1 X2 np\_11) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_44 = k1\_funct\_1 X2 np\_12) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_45 = k1\_funct\_1 X2 np\_13) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_46 = k1\_funct\_1 X2 np\_14) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_47 = k1\_funct\_1 X2 np\_15) \wedge ((k1\_funct\_1 \\
& (k8\_finseq\_1 X0 X1 X2) np\_48 = k1\_funct\_1 X2 np\_16)))
\end{aligned}$$

(4)

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_finseq\_1 X1 X0)\wedge(m1\_finseq\_1 X2 X0))\Rightarrow(m2\_finseq\_1 (k8\_finseq\_1 X0 X1 X2) X0) \quad (5)$$

