

t42\_graphsp  
(TMP5AY6ApSTB34JbVfdCfT8pYbrZ2BnZhVP)

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Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_2 : \iota \Rightarrow \iota$  be given. Let  $r2\_graphsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m2\_finseq\_2 X0 k1\_numbers (k3\_finseq\_2 k1\_numbers)) \Rightarrow \\
& (\forall X1.(m2\_finseq\_2 X1 k1\_numbers (k3\_finseq\_2 k1\_numbers)) \Rightarrow \\
& (\forall X2.(m2\_subset\_1 X2 k1\_numbers k5\_numbers) \Rightarrow (\forall X3. \\
& (m2\_subset\_1 X3 k1\_numbers k5\_numbers) \Rightarrow ((r2\_graphsp X0 X1 X2 X3) \Leftrightarrow \\
& ((k4\_finseq\_1 X0 = k4\_finseq\_1 X1) \wedge (\forall X4.(m2\_subset\_1 X4 \\
& k1\_numbers k5\_numbers) \Rightarrow (((X4 \in k4\_finseq\_1 X0) \wedge ((r1\_xxreal\_0 \\
& X2 X4) \wedge (r1\_xxreal\_0 X4 X3)))) \Rightarrow (k1\_seq\_1 X0 X4 = k1\_seq\_1 X1 X4))))))))) \\
& \tag{1}
\end{aligned}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(m2\_subset\_1 X0 k1\_numbers k5\_numbers) \Rightarrow (\forall X1. \\
& (m2\_subset\_1 X1 k1\_numbers k5\_numbers) \Rightarrow (\forall X2.(m2\_finseq\_2 \\
& X2 k1\_numbers (k3\_finseq\_2 k1\_numbers)) \Rightarrow (r2\_graphsp X2 X2 X0 X1)))
\end{aligned}$$