

# t32\_sgraph1

(TMXmiNisWiSu3nvrjha13DEuk5f4H5qPbRP)

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Let  $m1\_sgraph1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k5\_sgraph1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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  $r3\_sgraph1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (m1\_sgraph1 X1 X0) \Rightarrow (\forall X2. (m1\_subset\_1 \\
& \quad X2 (u1\_struct\_0 X1)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 \\
& X1)) \Rightarrow (k5\_sgraph1 X0 X1 X2 X3 = ReplSep (toSet (\lambda X4 : \iota. m2\_finseq\_2 \\
& \quad X4 (u1\_struct\_0 X1) (k3\_finseq\_2 (u1\_struct\_0 X1)))) (\lambda X4 : \\
& \quad \iota. r3\_sgraph1 X0 X1 X2 X3 X4) (\lambda X4 : \iota. X4))))))
\end{aligned} \tag{1}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0. \forall X1. (m1\_sgraph1 X1 X0) \Rightarrow (\forall X2. (m1\_subset\_1 \\
& \quad X2 (u1\_struct\_0 X1)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 \\
& X1)) \Rightarrow (\forall X4. (X4 \in k5\_sgraph1 X0 X1 X2 X3) \Leftrightarrow (\exists X5. (m2\_finseq\_2 \\
& \quad X5 (u1\_struct\_0 X1) (k3\_finseq\_2 (u1\_struct\_0 X1)))) \wedge ((X4 = X5) \wedge \\
& \quad (r3\_sgraph1 X0 X1 X2 X3 X5))))))
\end{aligned}$$