

# t21\_fintopo2 (TMUZmMMCM- dyNZHQmyrqnsGf7MdkKfqZCXEv)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_fintopo2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k10\_fintopo2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_fintopo2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_fintopo2 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (k10\_fintopo2 \\ & X0 X1 = ReplSep (toset (\lambda X2 : \iota. m1\_subset\_1 X2 (u1\_struct\_0 \\ & X0)))) (\lambda X2 : \iota. \exists X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 \\ & X0))) \wedge ((X3 \in k6\_fintopo2 X0 X2) \wedge (r1\_tarski X3 X1))) (\lambda X2 : \iota. \\ & X2))) \end{aligned} \tag{1}$$

## Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_fintopo2 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 \\ & (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((X1 \in k10\_fintopo2 X0 X2) \Leftrightarrow (\exists X3. \\ & (m1\_subset\_1 X3 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \wedge ((X3 \in k6\_fintopo2 \\ & X0 X1) \wedge (r1\_tarski X3 X2)))))) \end{aligned}$$