

t12\_e\_siec  
(TMKWtZUEVpYThHx4ieLYZJG5NSbSeZkFRHa)

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Let  $v2\_e\_siec : \iota \Rightarrow o$  be given. Let  $v3\_e\_siec : \iota \Rightarrow o$  be given. Let  $l1\_e\_siec : \iota \Rightarrow o$  be given. Let  $k1\_sysrel : \iota \Rightarrow \iota$  be given. Let  $u1\_e\_siec : \iota \Rightarrow \iota$  be given. Let  $u2\_e\_siec : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.(v1\_relat\_1 X1) \Rightarrow ((( \\ & \quad k3\_relat\_1 X0 X1 = X0) \wedge ((k3\_relat\_1 X1 (k6\_subset\_1 X1 (k4\_relat\_1 \\ & \quad (k9\_xtuple\_0 X1))) = k1\_xboole\_0) \wedge ((k3\_relat\_1 X1 X0 = X1) \wedge (k3\_relat\_1 \\ & \quad X0 (k6\_subset\_1 X0 (k4\_relat\_1 (k9\_xtuple\_0 X0))) = k1\_xboole\_0)))) \Rightarrow \\ & (k1\_sysrel X0 = k1\_sysrel X1) \wedge (((k3\_relat\_1 X1 X0 = X0) \wedge ((k3\_relat\_1 \\ & \quad (k6\_subset\_1 X1 (k4\_relat\_1 (k9\_xtuple\_0 X1))) X1 = k1\_xboole\_0) \wedge \\ & \quad ((k3\_relat\_1 X0 X1 = X1) \wedge (k3\_relat\_1 (k6\_subset\_1 X0 (k4\_relat\_1 \\ & \quad (k9\_xtuple\_0 X0))) X0 = k1\_xboole\_0)))) \Rightarrow (k1\_sysrel X0 = k1\_sysrel \\ & \quad X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_e\_siec X0) \wedge ((v3\_e\_siec X0) \wedge (l1\_e\_siec X0))) \Rightarrow \\ & ((k4\_xboole\_0 (u1\_e\_siec X0) (k4\_relat\_1 (k9\_xtuple\_0 (u1\_e\_siec \\ & \quad X0))) = k4\_xboole\_0 (u1\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 X0))) \wedge \\ & ((k4\_xboole\_0 (u2\_e\_siec X0) (k4\_relat\_1 (k9\_xtuple\_0 (u2\_e\_siec \\ & \quad X0))) = k4\_xboole\_0 (u2\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 X0))) \wedge \\ & ((k4\_xboole\_0 (u1\_e\_siec X0) (k4\_relat\_1 (k10\_xtuple\_0 (u1\_e\_siec \\ & \quad X0))) = k4\_xboole\_0 (u1\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 X0))) \wedge \\ & (k4\_xboole\_0 (u2\_e\_siec X0) (k4\_relat\_1 (k10\_xtuple\_0 (u2\_e\_siec \\ & \quad X0))) = k4\_xboole\_0 (u2\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 X0)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \tag{3}$$

Assume the following.

$$\forall X0.(l1\_e\_siec X0) \Rightarrow (v1\_relat\_1 (u2\_e\_siec X0)) \quad (4)$$

Assume the following.

$$\forall X0.(l1\_e\_siec X0) \Rightarrow (v1\_relat\_1 (u1\_e\_siec X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_e\_siec X0) \Rightarrow & ((v3\_e\_siec X0) \Leftrightarrow ((k3\_relat\_1 (u1\_e\_siec \\ X0) (k4\_xboole\_0 (u1\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 X0))) = & \\ k1\_xboole\_0) \wedge (k3\_relat\_1 (u2\_e\_siec X0) (k4\_xboole\_0 (u2\_e\_siec & \\ X0) (k4\_relat\_1 (u1\_struct\_0 X0))) = k1\_xboole\_0))) & \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1\_e\_siec X0) \Rightarrow & ((v2\_e\_siec X0) \Leftrightarrow ((r1\_tarski (u1\_e\_siec \\ X0) (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0))) \wedge ((r1\_tarski & \\ (u2\_e\_siec X0) (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0))) \wedge & \\ ((k3\_relat\_1 (u1\_e\_siec X0) (u1\_e\_siec X0) = u1\_e\_siec X0) \wedge ((k3\_relat\_1 & \\ (u1\_e\_siec X0) (u2\_e\_siec X0) = u1\_e\_siec X0) \wedge ((k3\_relat\_1 (u2\_e\_siec & \\ X0) (u2\_e\_siec X0) = u2\_e\_siec X0) \wedge (k3\_relat\_1 (u2\_e\_siec X0) ( & \\ u1\_e\_siec X0) = u2\_e\_siec X0)))))) & \end{aligned} \quad (7)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v2\_e\_siec X0) \wedge ((v3\_e\_siec X0) \wedge (l1\_e\_siec X0))) \Rightarrow & \\ (k1\_sysrel (u1\_e\_siec X0) = k1\_sysrel (u2\_e\_siec X0)) & \end{aligned}$$