

t26\_e\_siec  
(TMM6mz6y3kzrp4U1fArEeqp9hKiv9kPWXuH)

October 27, 2020

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  $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u2\_e\_siec : \iota \Rightarrow \iota$  be given. Let  $k4\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_e\_siec : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.(v1\_relat\_1 X1) \Rightarrow (k2\_relat\_1 (k3\_relat\_1 X0 X1) = k3\_relat\_1 (k2\_relat\_1 X1) (k2\_relat\_1 X0))) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_e\_siec X0) \wedge ((v3\_e\_siec X0) \wedge (l1\_e\_siec X0))) \Rightarrow \\ & ((k3\_relat\_1 (k4\_relat\_1 (k4\_xboole\_0 (u1\_struct\_0 X0) (k10\_xtuple\_0 \\ & (u2\_e\_siec X0)))) (k4\_xboole\_0 (u2\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 \\ & X0))) = k4\_xboole\_0 (u2\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 X0))) \wedge \\ & (k3\_relat\_1 (k4\_relat\_1 (k4\_xboole\_0 (u1\_struct\_0 X0) (k10\_xtuple\_0 \\ & (u1\_e\_siec X0)))) (k4\_xboole\_0 (u1\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 \\ & X0))) = k4\_xboole\_0 (u1\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.v1\_relat\_1 (k4\_relat\_1 X0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1 (k3\_relat\_1 X0 X1) \quad (4)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v2\_e\_siec X0) \wedge ((v3\_e\_siec X0) \wedge (l1\_e\_siec X0))) \Rightarrow \\ & ((k3\_relat\_1 (k2\_relat\_1 (k4\_xboole\_0 (u2\_e\_siec X0) (k4\_relat\_1 \\ & (u1\_struct\_0 X0)))) (k2\_relat\_1 (k4\_relat\_1 (k4\_xboole\_0 (u1\_struct\_0 \\ & X0) (k10\_xtuple\_0 (u2\_e\_siec X0)))))) = k2\_relat\_1 (k4\_xboole\_0 \\ & (u2\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 X0)))) \wedge (k3\_relat\_1 ( \\ & k2\_relat\_1 (k4\_xboole\_0 (u1\_e\_siec X0) (k4\_relat\_1 (u1\_struct\_0 \\ & X0)))) (k2\_relat\_1 (k4\_relat\_1 (k4\_xboole\_0 (u1\_struct\_0 X0) \\ & (k10\_xtuple\_0 (u1\_e\_siec X0)))))) = k2\_relat\_1 (k4\_xboole\_0 (u1\_e\_siec \\ & X0) (k4\_relat\_1 (u1\_struct\_0 X0)))) \end{aligned}$$