

## t19\_altcat\_2

(TMXNfDh6MHSKYLaswjsqb795RkSZTJsZfux)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v6\_altcat\_1 : \iota \Rightarrow o$  be given. Let  $l2\_altcat\_1 : \iota \Rightarrow o$  be given. Let  $k5\_altcat\_2 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_altcat\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v6\_altcat\_1 X0) \wedge (l2\_altcat\_1 X0)) \Rightarrow (\forall X1. \\ & ((v6\_altcat\_1 X1) \wedge (l2\_altcat\_1 X1)) \Rightarrow (((v1\_xboole\_0 (u1\_struct\_0 \\ & X0)) \wedge (v1\_xboole\_0 (u1\_struct\_0 X1))) \Rightarrow (X0 = X1))) \end{aligned} \quad (1)$$

Assume the following.

$$(v2\_struct\_0 k5\_altcat\_2) \wedge (v6\_altcat\_1 k5\_altcat\_2) \quad (2)$$

Assume the following.

$$\forall X0.((v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow (v1\_xboole\_0 (u1\_struct\_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(l2\_altcat\_1 X0) \Rightarrow (l1\_altcat\_1 X0) \quad (4)$$

Assume the following.

$$\forall X0.(l1\_altcat\_1 X0) \Rightarrow (l1\_struct\_0 X0) \quad (5)$$

Assume the following.

$$(v6\_altcat\_1 k5\_altcat\_2) \wedge (l2\_altcat\_1 k5\_altcat\_2) \quad (6)$$

**Theorem 1**

$$\forall X0.((v2\_struct\_0 X0) \wedge ((v6\_altcat\_1 X0) \wedge (l2\_altcat\_1 X0))) \Rightarrow (X0 = k5\_altcat\_2)$$