

# l17\_topalg\_2 (TM- bCgz9WgXRrQpsRhYRhSvCsC4etddWLnRV)

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Let  $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_topmetr : \iota$  be given. Let  $v2\_topalg\_2 : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v3\_topmetr : \iota \Rightarrow o$  be given. Let  $v6\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k2\_struct\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$u1\_struct\_0 \ k3\_topmetr = k1\_numbers \quad (1)$$

Assume the following.

$$(v2\_pre\_topc \ k3\_topmetr) \wedge (v3\_topmetr \ k3\_topmetr) \quad (2)$$

Assume the following.

$$v6\_xxreal\_2 \ k1\_numbers \quad (3)$$

Assume the following.

$$\forall X0. (l1\_pre\_topc \ X0) \Rightarrow (l1\_struct\_0 \ X0) \quad (4)$$

Assume the following.

$$(v2\_pre\_topc \ k3\_topmetr) \wedge (l1\_pre\_topc \ k3\_topmetr) \quad (5)$$

Assume the following.

$$\forall X0. ((v3\_topmetr \ X0) \wedge (l1\_pre\_topc \ X0)) \Rightarrow ((v2\_topalg\_2 \ X0) \Leftrightarrow (v6\_xxreal\_2 \ (k2\_struct\_0 \ X0))) \quad (6)$$

Assume the following.

$$\forall X0. (l1\_struct\_0 \ X0) \Rightarrow (k2\_struct\_0 \ X0 = u1\_struct\_0 \ X0) \quad (7)$$

## Theorem 1

$$\forall X0. (m1\_pre\_topc \ X0 \ k3\_topmetr) \Rightarrow ((X0 = k3\_topmetr) \Rightarrow (v2\_topalg\_2 \ X0))$$