

t67\_borsuk\_5 (TMQvmZJcPKQJDfE-  
FQqEU4tiuzZu6pHq1vDz)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_topmetr : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k2\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_0 : \iota$  be given. Let  $k4\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_borsuk\_5 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 k3\_topmetr))) \Rightarrow \\ & \quad (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\forall X2.(v1\_xreal\_0 X2) \Rightarrow (\forall X3. \\ & (v1\_xreal\_0 X3) \Rightarrow ((X0 = k4\_subset\_1 k1\_numbers (k4\_subset\_1 k1\_numbers \\ & \quad (k4\_subset\_1 k1\_numbers (k2\_rcomp\_1 k2\_xxreal\_0 X1) (k4\_rcomp\_1 \\ & \quad X1 X2)) (k3\_borsuk\_5 X2 X3)) (k1\_seq\_4 X3)) \Rightarrow ((r1\_xxreal\_0 X2 X1) \vee \\ & \quad ((r1\_xxreal\_0 X3 X2) \vee (k2\_pre\_topc k3\_topmetr X0 = k4\_rcomp\_1 k2\_xxreal\_0 \\ & \quad X3)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 k3\_topmetr))) \Rightarrow \\ & \quad (\forall X1.(v1\_xreal\_0 X1) \Rightarrow ((X0 = k1\_seq\_4 X1) \Rightarrow (k2\_pre\_topc \\ & \quad k3\_topmetr X0 = k1\_seq\_4 X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & \quad (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. \\ & \quad (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (k2\_pre\_topc \\ & \quad X0 (k4\_subset\_1 (u1\_struct\_0 X0) X1 X2) = k4\_subset\_1 (u1\_struct\_0 \\ & \quad X0) (k2\_pre\_topc X0 X1) (k2\_pre\_topc X0 X2)))) \end{aligned} \tag{3}$$

Assume the following.

$$u1\_struct\_0 k3\_topmetr = k1\_numbers \tag{4}$$

Assume the following.

$$v1\_xxreal\_0 \ k2\_xxreal\_0 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ X0)) \wedge (m1\_subset\_1 \ X2 \ (k1\_zfmisc\_1 \ X0))) \Rightarrow (m1\_subset\_1 \ (k4\_subset\_1 \ X0 \ X1 \ X2) \ (k1\_zfmisc\_1 \ X0)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 \ X0) \wedge (v1\_xreal\_0 \ X1)) \Rightarrow (m1\_subset\_1 \ (k4\_rcomp\_1 \ X0 \ X1) \ (k1\_zfmisc\_1 \ k1\_numbers)) \tag{7}$$

Assume the following.

$$(v2\_pre\_topc \ k3\_topmetr) \wedge (l1\_pre\_topc \ k3\_topmetr) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 \ X0) \wedge (v1\_xreal\_0 \ X1)) \Rightarrow (m1\_subset\_1 \ (k3\_borsuk\_5 \ X0 \ X1) \ (k1\_zfmisc\_1 \ k1\_numbers)) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 \ X0) \wedge (v1\_xxreal\_0 \ X1)) \Rightarrow (m1\_subset\_1 \ (k2\_rcomp\_1 \ X0 \ X1) \ (k1\_zfmisc\_1 \ k1\_numbers)) \tag{10}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 \ X0) \Rightarrow (m1\_subset\_1 \ (k1\_seq\_4 \ X0) \ (k1\_zfmisc\_1 \ k1\_numbers)) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 \ X0) \Rightarrow (v1\_xxreal\_0 \ X0) \tag{12}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 \ X0 \ (k1\_zfmisc\_1 \ (u1\_struct\_0 \ k3\_topmetr))) \Rightarrow \\ & (\forall X1.(v1\_xreal\_0 \ X1) \Rightarrow (\forall X2.(v1\_xreal\_0 \ X2) \Rightarrow (\forall X3. \\ & (v1\_xreal\_0 \ X3) \Rightarrow (\forall X4.(v1\_xreal\_0 \ X4) \Rightarrow ((X0 = k4\_subset\_1 \\ & k1\_numbers \ (k4\_subset\_1 \ k1\_numbers \ (k4\_subset\_1 \ k1\_numbers \ ( \\ & k4\_subset\_1 \ k1\_numbers \ (k2\_rcomp\_1 \ k2\_xxreal\_0 \ X1) \ (k4\_rcomp\_1 \\ & X1 \ X2)) \ (k3\_borsuk\_5 \ X2 \ X3)) \ (k1\_seq\_4 \ X3)) \ (k1\_seq\_4 \ X4)) \Rightarrow ((r1\_xxreal\_0 \\ & X2 \ X1) \vee ((r1\_xxreal\_0 \ X3 \ X2) \vee (k2\_pre\_topc \ k3\_topmetr \ X0 = k4\_subset\_1 \\ & k1\_numbers \ (k4\_rcomp\_1 \ k2\_xxreal\_0 \ X3) \ (k1\_seq\_4 \ X4)))))))))) \end{aligned}$$