

## t23\_topreal9

(TMTwWR7hr9LPxNNc29fZ64UstQHxY8DFnka)

October 27, 2020

Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k15\_euclid : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k2\_topreal9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v3\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{1}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v7\_ordinal1 X0) \wedge ((m1\_subset\_1 \\ & X1 (u1\_struct\_0 (k15\_euclid X0))) \wedge ((v1\_xreal\_0 X2) \wedge (\neg v3\_xxreal\_0 \\ & X2)))) \Rightarrow (\neg v1\_xboole\_0 (k2\_topreal9 X0 X1 X2)) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. (v1\_xxreal\_0 X0) \Rightarrow ((v3\_xxreal\_0 X0) \Leftrightarrow (\neg r1\_xxreal\_0 k6\_numbers X0)) \tag{4}$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \tag{5}$$

Assume the following.

$$\forall X0. (v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \tag{6}$$

**Theorem 1**

$$\begin{aligned} & \forall X0. (m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1. (v1\_xreal\_0 \\ & X1) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid X0))) \Rightarrow \\ & (\neg (v1\_xboole\_0 (k2\_topreal9 X0 X2 X1)) \wedge (r1\_xxreal\_0 k6\_numbers \\ & X1)))) \end{aligned}$$