

# t20\_rat\_1 (TMRyJwLvGXguMNMGGK- TymdygdngBfjHPsZQ)

October 27, 2020

Let  $v1\_rat\_1 : \iota \Rightarrow o$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k2\_rat\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_rat\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_int\_1 X0) \Rightarrow ((r1\_xreal\_0 k6\_numbers X0) \Rightarrow (X0 \in k5\_numbers)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_rat\_1 X0) \Rightarrow (((k2\_rat\_1 X0 = X0) \vee (k1\_rat\_1 X0 = np\_1)) \Rightarrow (v1\_int\_1 X0)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2.(m2\_subset\_1 X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \quad (4)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (5)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (6)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_numbers \quad (7)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (8)$$

**Theorem 1**

$$\forall X0.(v1\_rat\_1 X0) \Rightarrow ((r1\_xreal\_0 k6\_numbers X0) \Rightarrow (((k2\_rat\_1 X0 \neq X0) \wedge (k1\_rat\_1 X0 \neq np\_1)) \vee (m2\_subset\_1 X0 k1\_numbers k5\_numbers)))$$