

## t29\_ec\_pf\_2

(TMMSN2SYsfW2yt3bpt4VFULtjCJYVKLHHRN)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_int\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k9\_int\_3 : \iota \Rightarrow \iota$  be given. Let  $k6\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_binom : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  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  $np\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (((r1\_xxreal\_0 \\ k6\_numbers X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \vee (k6\_int\_1 X1 X0 = X1))) \wedge (( \\ r1\_xxreal\_0 (k4\_xcmplx\_0 X0) X1) \Rightarrow ((r1\_xxreal\_0 k6\_numbers X1) \vee \\ (k6\_int\_1 X1 X0 = k2\_xcmplx\_0 X0 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.((v7\_ordinal1 X1) \wedge ( \\ v1\_int\_2 X1)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k9\_int\_3 \\ X1))) \Rightarrow (\neg(X2 \neq k6\_numbers) \wedge (k2\_binom (k9\_int\_3 X1) X2 X0 = k6\_numbers)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.((v7\_ordinal1 X0) \wedge (v1\_int\_2 X0)) \Rightarrow (k6\_numbers = k4\_struct\_0 (k9\_int\_3 X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} ((v2\_xxreal\_0 np\_3) \wedge (m2\_subset\_1 np\_3 k1\_numbers k5\_numbers)) \wedge \\ ((m1\_subset\_1 np\_3 k5\_numbers) \wedge (m1\_subset\_1 np\_3 k1\_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$v1\_xboole\_0 \text{ np\_}0 \tag{6}$$

Assume the following.

$$r1\_xxreal\_0 \text{ np\_}0 \text{ np\_}3 \tag{7}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{8}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{9}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k4\_ordinal1) \Rightarrow (v7\_ordinal1 \ X0) \tag{10}$$

Assume the following.

$$\forall X0.(v7\_ordinal1 \ X0) \Rightarrow (v1\_int\_1 \ X0) \tag{11}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v7\_ordinal1 \ X0) \wedge (v1\_int\_2 \ X0)) \Rightarrow (\forall X1.(v7\_ordinal1 \\ & \ X1) \Rightarrow (\forall X2.(m1\_subset\_1 \ X2 \ (u1\_struct\_0 \ (k9\_int\_3 \ X0))) \Rightarrow \\ & (\forall X3.(m1\_subset\_1 \ X3 \ (u1\_struct\_0 \ (k9\_int\_3 \ X0))) \Rightarrow ((X3 = \\ & \ k6\_int\_1 \ \text{np\_}3 \ X0) \Rightarrow ((r1\_xxreal\_0 \ X0 \ \text{np\_}3) \vee ((X3 \neq k4\_struct\_0 \\ & \ (k9\_int\_3 \ X0)) \wedge (k2\_binom \ (k9\_int\_3 \ X0) \ X3 \ X1 \neq k4\_struct\_0 \ (k9\_int\_3 \\ & \ X0))))))))) \end{aligned}$$