

### t3\_absvalue

(TMcm3CrZUCT9heaTRcTtyJsnHjpxGvpyuU5)

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k18\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k17\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k16\_complex1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow (&(\neg(\neg r1\_xreal\_0 k6\_numbers X0) \wedge \\ &(r1\_xreal\_0 (k4\_xcmplx\_0 X0) k6\_numbers)) \wedge (\neg(\neg r1\_xreal\_0 \\ &(k4\_xcmplx\_0 X0) k6\_numbers) \wedge (r1\_xreal\_0 k6\_numbers X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (&(\neg(X0 \neq k6\_numbers) \wedge (r1\_xreal\_0 \\ &(k17\_complex1 X0) k6\_numbers)) \wedge (\neg(\neg r1\_xreal\_0 (k17\_complex1 \\ &X0) k6\_numbers) \wedge (X0 = k6\_numbers))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow (&(r1\_xreal\_0 k6\_numbers X0) \Rightarrow (k17\_complex1 \\ &X0 = X0)) \end{aligned} \quad (3)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k18\_complex1 X0 = k16\_complex1 X0) \quad (5)$$

Assume the following.

$$k1\_xboole\_0 = the (\lambda X0 : \iota.v1\_xboole\_0 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow (&((r1\_xreal\_0 k6\_numbers X0) \Rightarrow (k16\_complex1 \\ &X0 = X0)) \wedge ((\neg r1\_xreal\_0 k6\_numbers X0) \Rightarrow (k16\_complex1 X0 = k4\_xcmplx\_0 \\ &X0))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xcmplx\_0 X0) \quad (8)$$

**Theorem 1**

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\neg(k18\_complex1 X0 = k4\_xcmplx\_0 X0) \wedge ((X0 \neq k6\_numbers) \wedge (r1\_xxreal\_0 k6\_numbers X0)))$$