

t8_absvalue (TMNcwNRCAJbhDhW- pcgZU7j5DrS5aRwHvNJv)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_square_1 : \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_square_1 : \iota \Rightarrow \iota$ be given. Let $k18_complex1 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k17_complex1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k16_complex1 : \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (k17_complex1 (k3_xcmplx_0 X0 X1) = k8_real_1 (k17_complex1 X0) (k17_complex1 X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (r1_xxreal_0 k6_numbers (k17_complex1 X0)) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((r1_xxreal_0 k6_numbers X0) \wedge (r1_xxreal_0 k6_numbers X1)) \Rightarrow (k6_square_1 (k3_xcmplx_0 X0 X1) = k3_xcmplx_0 (k6_square_1 X0) (k6_square_1 X1)))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (k8_real_1 X0 X1 = k3_xcmplx_0 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (k7_square_1 X0 = k6_square_1 X0) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k18_complex1 X0 = k16_complex1 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k17_complex1 X0 = k16_complex1 X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (v1_xreal_0 (k3_xcmplx_0 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (m1_subset_1 (k7_square_1 X0) k1_numbers) \quad (9)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xreal_0 (k6_square_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (m1_subset_1 (k18_complex1 X0) k1_numbers) \quad (11)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (v1_xreal_0 (k16_complex1 X0)) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (((r1_xxreal_0 k6_numbers X0) \Rightarrow (k16_complex1 X0 = X0)) \wedge ((\neg r1_xxreal_0 k6_numbers X0) \Rightarrow (k16_complex1 X0 = k4_xcmplx_0 X0))) \quad (13)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xcmplx_0 X0) \quad (14)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 k6_numbers (k3_xcmplx_0 X0 X1)) \Rightarrow (k6_square_1 (k3_xcmplx_0 X0 X1) = k8_real_1 (k7_square_1 (k18_complex1 X0)) (k7_square_1 (k18_complex1 X1)))))$$