t16_absvalue (TMLm-mQt6qkHMm7q8yXLLffwRsnMmvdV4viF)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k1\_absvalue : \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k1\_real\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\neg(k1\_absvalue\ X0 = k1\_real\_1\ np\_\_1) \wedge (r1\_xxreal\_0\ k6\_numbers\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\neg(k1\_absvalue\ X0 = np\_\_1) \wedge (r1\_xxreal\_0\ X0\ k6\_numbers)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0) \wedge (v1\_xxreal\_0\ X1)) \Rightarrow (r1\_xxreal\_0\ X0\ X0) \tag{3}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (k1\_absvalue\ (k1\_absvalue\ X0) = k1\_absvalue\ X0) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X1\ X0)) \Rightarrow (X0 = X1))) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xreal\_0\ (k1\_absvalue\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(((\neg r1\_xxreal\_0\ X0\ k6\_numbers)\Rightarrow(k1\_absvalue\ X0 = np\_\_1))\wedge(((\neg r1\_xxreal\_0\ k6\_numbers\ X0)\Rightarrow(k1\_absvalue\ X0 = k1\_real\_1\ np\_\_1))\wedge(((r1\_xxreal\_0\ X0\ k6\_numbers)\wedge(r1\_xxreal\_0\ k6\_numbers\ X0))\Rightarrow(k1\_absvalue\ X0 = k6\_numbers)))) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xxreal\_0\ X0) \tag{9}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow((k1\_absvalue\ X0 = k6\_numbers)\Rightarrow(X0 = k6\_numbers))$$