

Interior Angles of a Rhombus

Charlotte Brandenburg

April 29, 2015

Conjecture B. If ABCD is a rhombus, its interior angles add up to four right angles.

Proof. A rhombus can be thought of as two parallel lines on two other parallel lines, as shown:

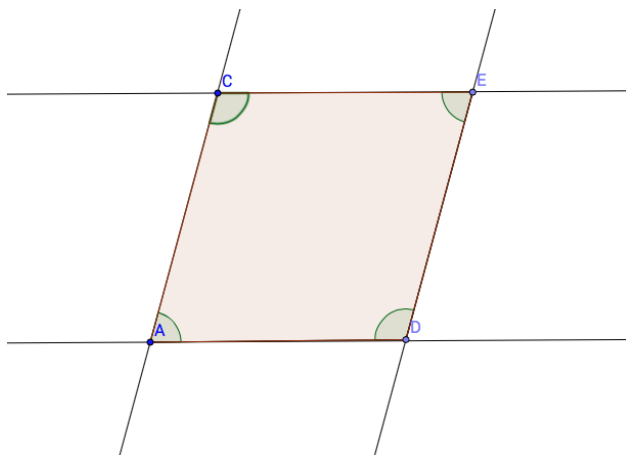


Figure 1:

Using Euclid I.29, we know when a line falls on two parallel lines, the two interior angles on the same side of the line taken together make two right angles. Since a rhombus is two parallel lines on two other parallel lines, it has two sets of interior angles adding to two right angles each, for a grand total of four right angles. \square

Refereed by Hailey Manternach.