**Ch. 8 Geomcast Topic: Proving type of Quadrilateral by Coordinate Proof**

Bert and Ernie were asked to determine the most precise name for the quadrilateral with the vertices A(3,5), B(8,7), C(2,1), D(6,2). Bert is adamant that the quadrilateral is a square, but Ernie firmly disagrees. Who is correct? Justify your answer mathematically.