THE TASK

The vertices of quadrilateral $ABCD$ are $A(-5,2), B(4,5), C(6,-1), D(-3,-4)$.

Given the coordinates of the vertices of a quadrilateral, classify the quadrilateral as one of the following using the most specific classification possible:

Parallelogram, Rectangle, Rhombus, Square, Trapezoid

Use slope $m = \frac{y_2 - y_1}{x_2 - x_1}$ and segment length $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ to help make your selection then write a mathematical argument to justify your classification.