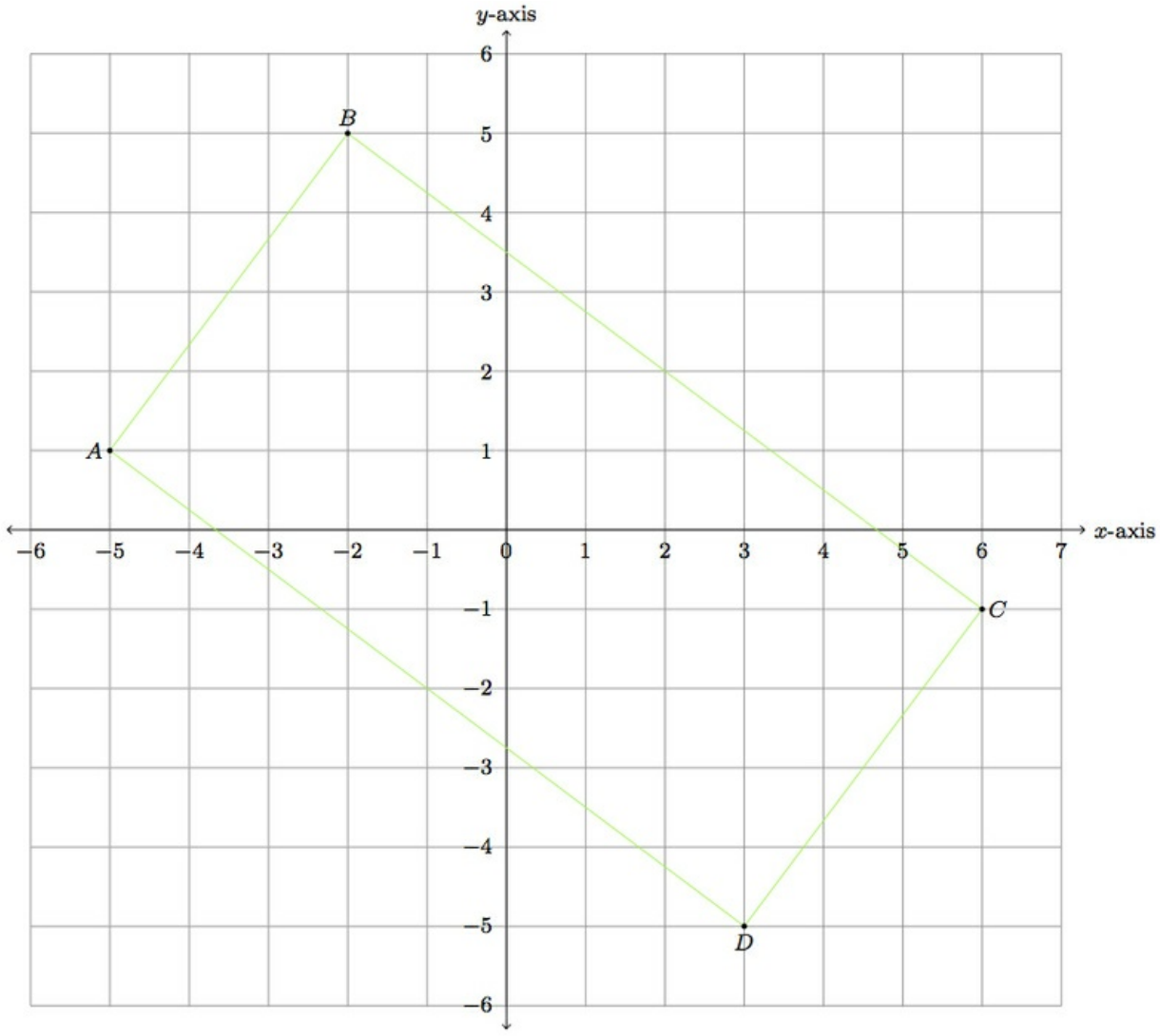
8.G A rectangle in the coordinate plane

Task

Below is a quadrilateral in the coordinate plane:



a. Use the Pythagorean theorem to find the lengths of sides $\overline{AB}$, $\overline{BC}$, $\overline{CD}$, and $\overline{DA}$. Can you conclude that quadrilateral $ABCD$ is a rectangle?

b. Use the Pythagorean theorem to find the lengths of the two diagonals $\overline{AC}$ and $\overline{BD}$

c. Use parts (a) and (b) to explain why quadrilateral $ABCD$ is a rectangle.

8.G A rectangle in the coordinate plane
Typeset May 4, 2016 at 22:58:28. Licensed by Illustrative Mathematics under a
Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License .