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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_  **Lesson 51** Geometry |

**Opening Exercise**



Given: Quadrilateral ABCD with coordinates

A , B , C  and D 

Prove: ABCD is a parallelogram

**Practice  Exercises**

1. The degree measures of two opposite angles of a parallelogram are represented by 

and . Find *x* and find the degree measure of all the angles of the parallelogram.



2. In the diagram of , diagonals  and  intersect at E.

If  and , find *x*.



3. In the diagram of ,  is a diagonal, 

and . Find .



4. In , , ,  and

. Find the lengths of all sides of the parallelogram.