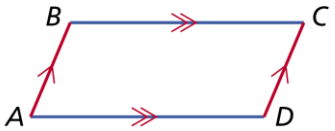
Geometry
Notes Lesson 6-2

Parallelogram: _____

In the diagram, the opposite sides are_____

and the opposite angles are _____



Theorem 6-2-1: If a quadrilateral is a parallelogram, then_____

Theorem 6-2-2: If a quadrilateral is a parallelogram, then_____

Theorem 6-2-3: If a quadrilateral is a parallelogram, then_____

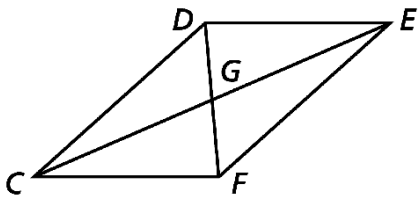
Theorem 6-2-4: If a quadrilateral is a parallelogram, then_____

Examples:

1. In parallelogram CDEF, DE = 74mm, DG = 31mm, and m∠FCD = 42°. Answer the following questions.
   a. Find CF

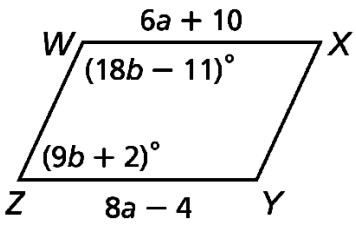
   b. Find m∠EFC

   c. Find DF

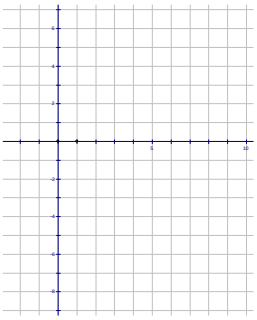


2. WXYZ is a parallelogram.
   a. Find YZ

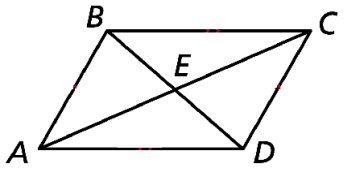
   b. Find m∠Z



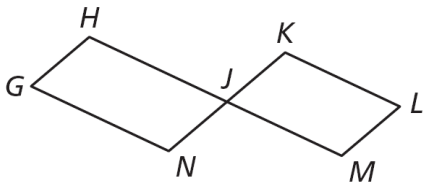
3. Three vertices of parallelogram JKLM are J(3, -8), K(-2, 2), and L(2, 6). Find the coordinates of M.



4. Given: ABCD is a p-gram (4 steps)
   Prove: $\Delta AEB \cong \Delta CED$



5. Given: GHJN and JKLM are parallelograms (4 steps)
   H and M are collinear
   N and K are collinear
   Prove: $\angle H \cong \angle M$



6. Given: RSTU is a parallelogram
   Prove: $\Delta RSU \cong \Delta TUS$