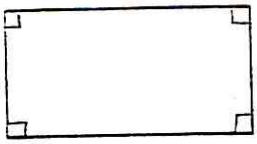
Chapter 6 Geometry Final Review

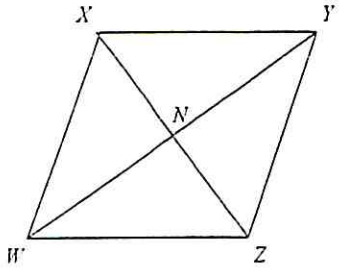
1. Which statement is true?
   a. All parallelograms are rectangles.
   b. All rectangles are squares.
   c. All parallelograms are quadrilaterals.
   d. All quadrilaterals are parallelograms.

2. Judging by appearance, classify the figure in as many ways as possible.

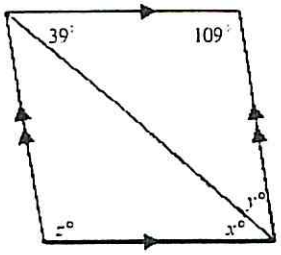


3. Based on the information given, can you determine that the quadrilateral must be a parallelogram? Explain.

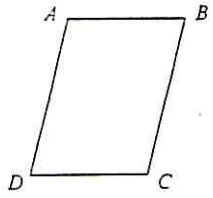
Given: $\overline{XN} \cong \overline{NZ}$ and $\overline{NY} \cong \overline{NW}$



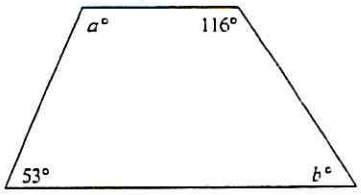
4. Find the values of the variables in the parallelogram. The diagram is not to scale.



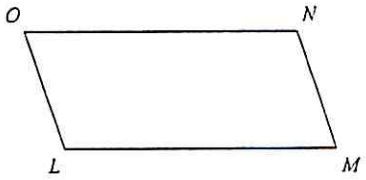
5. If $m\angle B = m\angle D = 39$, find $m\angle C$ so that quadrilateral $ABCD$ is a parallelogram. The diagram is not to scale.



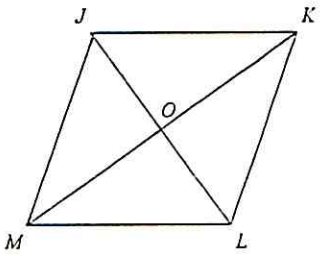
6. Find the values of a and b.The diagram is not to scale.



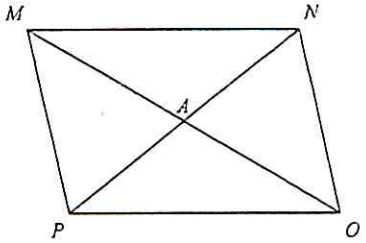
7. $LMNO$ is a parallelogram. If $NM = x + 22$ and $OL = 4x + 4$ find the value of x and then find NM and OL.



8. In the parallelogram, $m\angle KLO = 65$ and $m\angle MLO = 56$. Find $\angle KJM$. The diagram is not to scale.



9. Find AM in the parallelogram if $PN = 10$ and $AO = 6$. The diagram is not to scale.



10. The isosceles trapezoid is part of an isosceles triangle with a 32° vertex angle. What is the measure of an acute base angle of the trapezoid? Of an obtuse base angle? The diagram is not to scale.