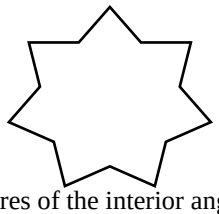
Name: Date: Period:

HW #7-13: Test Review

1. Name the polygon by its sides _____

   Is the polygon convex or concave? _____

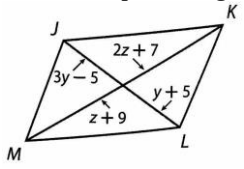
   Is the polygon regular or not regular? _____



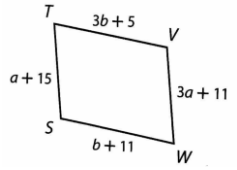
2. Find the measure of each exterior angle of a regular polygon whose sum of the measures of the interior angles is 6840º.

3. What is the sum of the interior angles in a 26-gon?

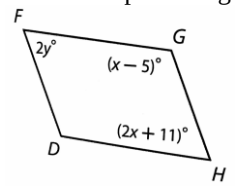
4. JKLM is a parallelogram. Find JL and KM.



5. STVW is a parallelogram. Find TV and VW.



6. DFGH is a parallelogram. Find the values of x and y.



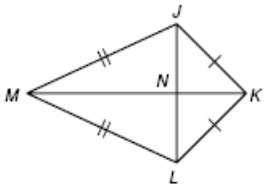
7. RSTU is a rhombus. $m\angle SRU = 128°$. Find $m\angle TRU$. Draw a diagram.

8. ABCD is a rectangle. The diagonals of the rectangle intersect at E. If AE = 16, what is BD? Draw a diagram.

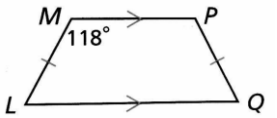
9. JKLM is a rectangle. The diagonals of the rectangle intersect at P. If $JP = 3x - 5$ and $KM = 4x + 22$, find the length of KM.. Draw a diagram.

10. WXYZ is a rhombus. The diagonals of the rhombus intersect at A. If $m\angle WAX = (13x + 12)°$, what is the value of x?

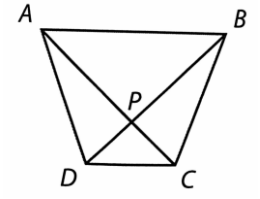
11. In the diagram below, $m\angle JKN = 36°$. Find $m\angle KLJ$.



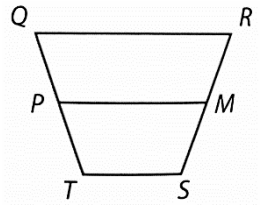
12. Find $m\angle Q$ in the diagram below.



13. ABCD is a trapezoid. If $m\angle ABC = 4x + 11$ and $m\angle DAB = 2x + 33$, find the value of x that makes ABCD an isosceles trapezoid.



14. $\overline{PM}$ is the midsegment of trapezoid QRST. QR = 16, PM = 12, and TS = 4x. Find the value of x.

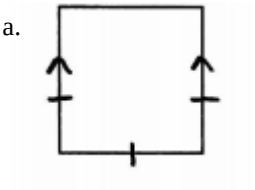


15. Determine if the following are always (A), sometimes (S), or never (N) true.

    a. A kite is a trapezoid.
    b. A parallelogram is a rhombus.
    c. If the diagonals of a quadrilateral are perpendicular, then it is a kite.
    d. If both pairs of opposite sides are congruent, then it is a rectangle.

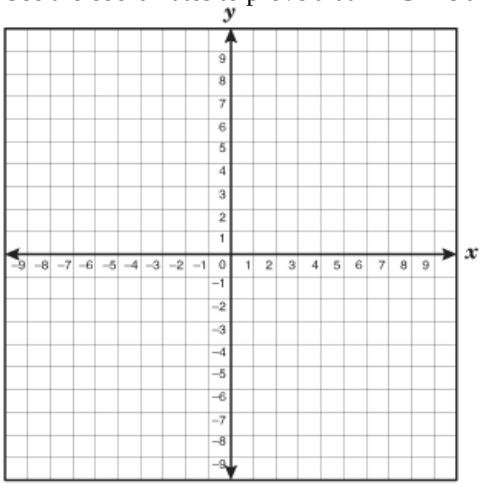
16. Determine if the shape is a parallelogram. If it is, explain why.

a.



b.

17. Use the coordinates to prove that ABCD is a parallelogram if A(-4, 5), B(5, 7), C(4, -2) and D(-5, -4).



18. Write a two-column proof on a separate sheet of paper.
    Given: KITE is a kite
    Prove: $\angle ISK \cong \angle IST$