

1. The sum of the measures of the interior angles of a convex polygon is given. How many sides does it have? SHOW WORK! $S = 4140$.

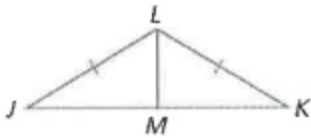
2. Find the following for a regular dodecagon: SHOW WORK!!!!

- Total interior angles
- Each interior angle
- Total exterior angles
- Each exterior angle

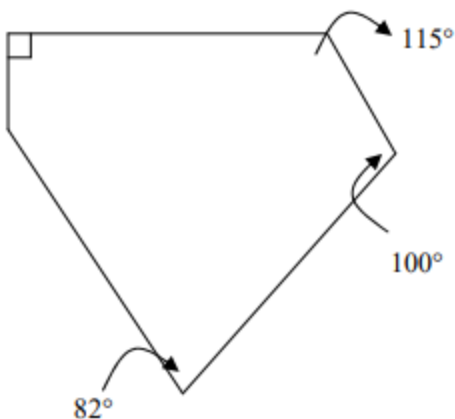
3. Complete the proof.

Given: $\overline{LM}$ bisects $\angle JLK$, $\overline{JL} \cong \overline{KL}$

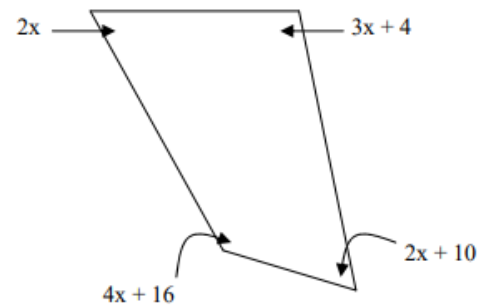
Prove: M is the midpoint of $\overline{JK}$.



4. Find the missing angle. SHOW WORK!

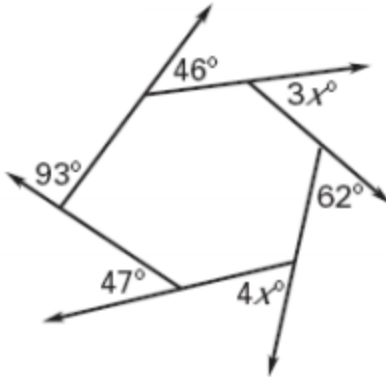


5. Find the measure of EACH angle. Show Work!



6. Find the number of sides for a regular polygon where each exterior angle is 8 degrees. SHOW WORK!

7. Find x . SHOW WORK!



8. How many sides does a regular polygon have
If each interior angle is 174 degrees.

- 9. The medians intersect at the
- 10. What is the formula for scale factor?
- 11. A line that intersects the circle at two points is called
- 12. If lines are parallel then consecutive interior angles are
- 13. If lines are parallel then alternate exterior angles are
- 14. A polygon with 9 sides is called

15. Find the equation of a line that is perpendicular to the equation $2x - 4y + 12 = 0$ and contains the point $(2, 4)$.

16. Name the 5 ways to prove that two triangles are congruent.

17. If a triangle has the points $A(-2, 9)$, $B(-3, 6)$ and $C(-1, 3)$ what will the new points be after

a. A rotation of 180 degrees

b. A reflection with the line $y = x$