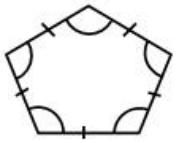
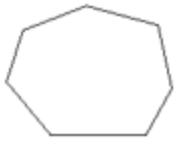
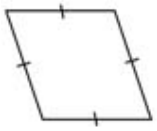
Name_____ Geometry 6.1, 6.6 and 6.7 Study Guide

Name the polygon based on the number of sides and classify it as equilateral, equiangular, regular or irregular.

1. 

2. 

3. 

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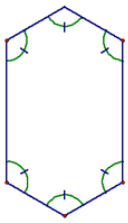
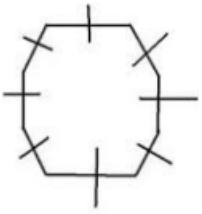
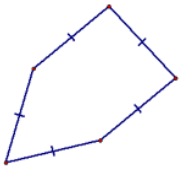
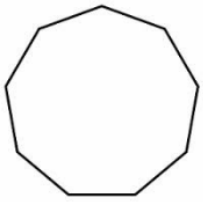
5. 

6. 

7. 

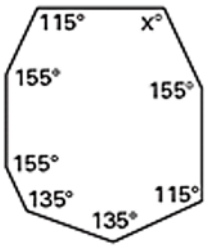
8. 

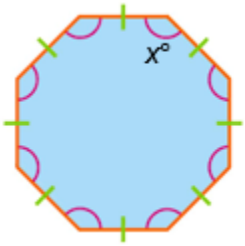
Find the sum of the measures of the interior angles of the given polygon.

9. Hendecagon

10. 40-gon

Find the sum of the interior angles and the value of *x*.

11. 

12. 

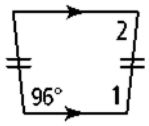
13. Each interior angle of a regular $n-gon$ measures 135°. Find the value of *n*.

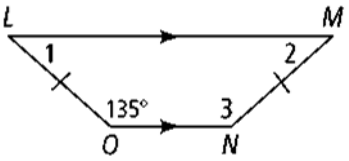
14. Each exterior angle of a regular $n-gon$ measures 3°. Find the value of *n*.

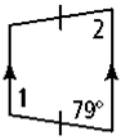
15. Find the measure of each interior angle of a regular $15-gon$.

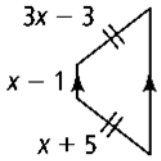
16. What is the sum of the exterior angles of a dodecagon?

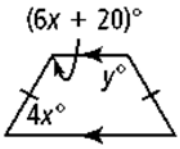
Find the value of the variables or measure of the numbered angles in each isosceles trapezoid.

17. 

18. 

19. 

20. 

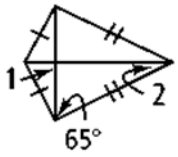
21. 

22. $LN = 7x$ and $MO = 2x + 5$. Find x and MO.

Find the value of the variables or measure of the numbered angles of each kite.

23.

24.



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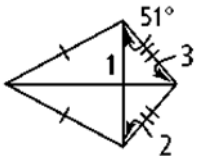

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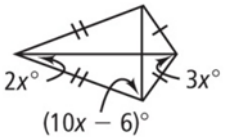

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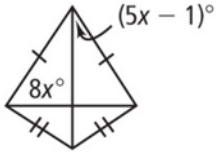

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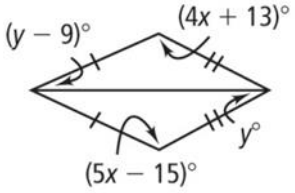
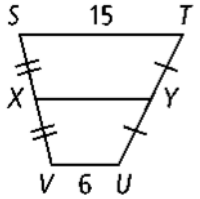
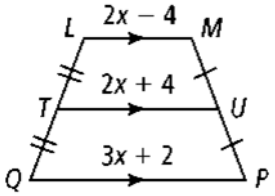


29. Find XY



Solve for *x* and the length of *TU*.

30.



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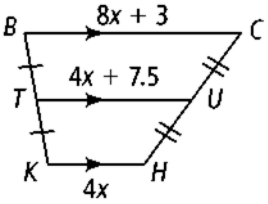
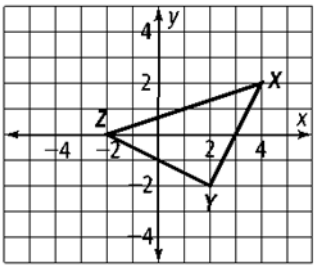


Determine whether ΔXYZ is scalene, isosceles, or equilateral.

32.



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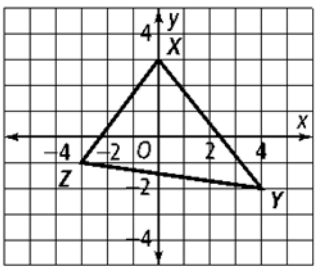
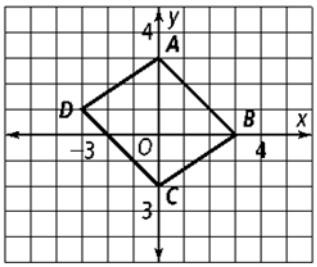
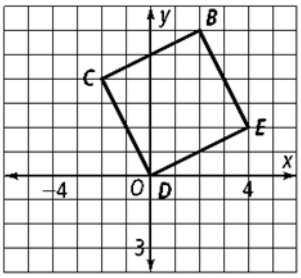


Prove each quadrilateral is the indicated figure.

34. Parallelogram

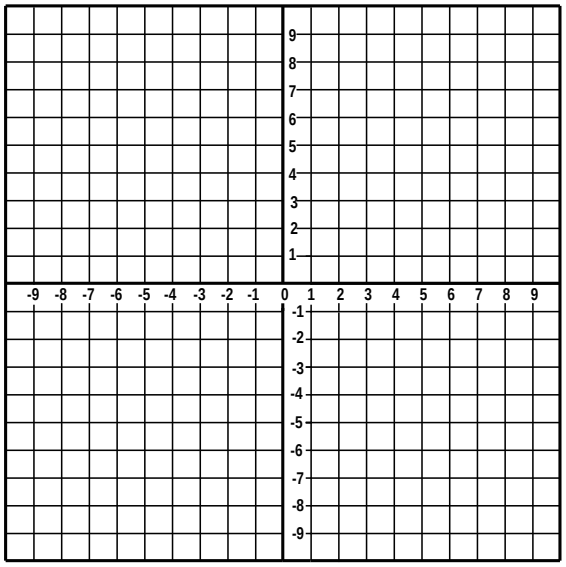


35. Square

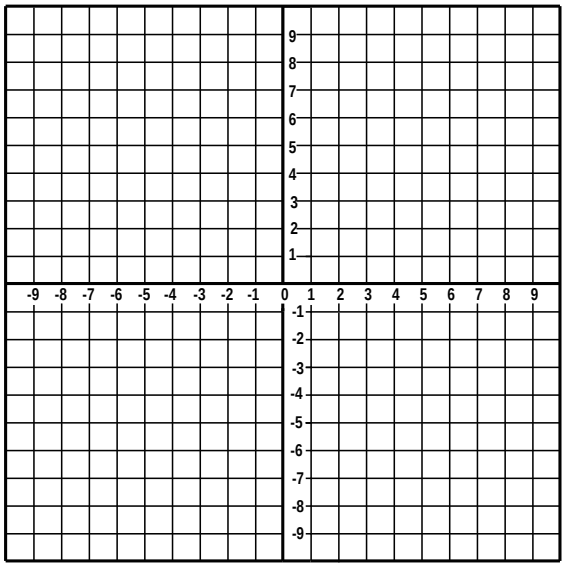


Graph and label the quadrilateral with the given vertices. Then, determine the most precise name for the quadrilateral. Justify your answer.

36. $A(-6, 3)$, $B(-2, 0)$, $C(-2, -5)$, $D(-6, -2)$



37. $A(1, 8)$, $B(4, 6)$, $C(1, -2)$, $D(-2, 0)$



38. $A(3, 4)$, $B(8, 1)$, $C(2, -9)$, $D(-3, -6)$