

Unit 4 Review (Chapter 6) Quadrilaterals

True/False

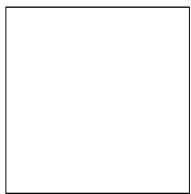
Indicate whether the statement is true or false.

1. All parallelograms are squares.
2. All squares are parallelograms.
3. Some rhombi are squares.
4. Some squares are rhombi.
5. Some trapezoids are parallelograms.
6. All rectangles are squares.
7. All squares are rectangles.

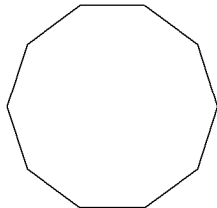
Short Answer

In 8-14, find the sum of the measures of the interior angles of the following polygons.

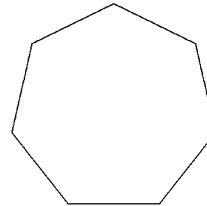
8. convex 23-gon
9. regular quadrilateral
10. regular octagon
11. convex 11-gon
- 12.



13.



14.



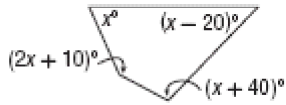
In 15-17, find the measure of one interior angle in each polygon. Round your answer to the nearest tenth if necessary.

15. regular 14-gon
16. regular 18-gon
17. regular 21-gon

In 18-19, find the measure of one exterior angle in each polygon. Round your answer to the nearest tenth if necessary.

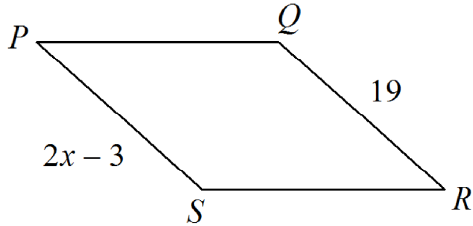
18. regular pentagon
19. regular 24-gon

20. Find the value of x .

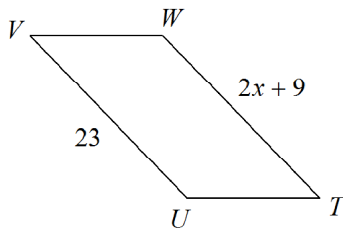


In questions 21-24, each shape is a parallelogram.

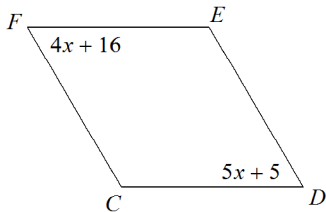
21. Find the value of x .



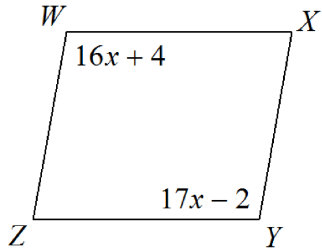
22. Find the value of x .



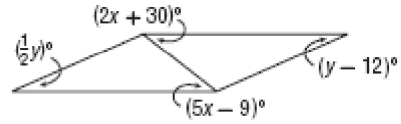
23. Find $m\angle D$



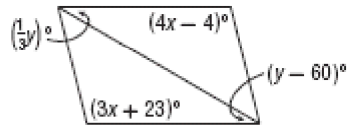
24. Find $m\angle X$



25. Find the values of x and y so that this quadrilateral is a parallelogram.

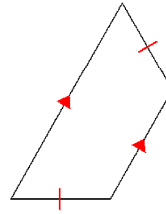


26. Find the values of the values of x and y so that the quadrilateral is a parallelogram.

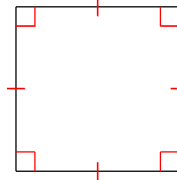


In problems 27-31, state the most specific name for each polygon.

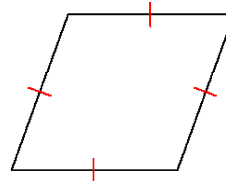
- 27.



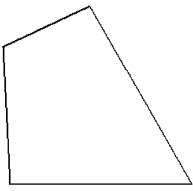
- 28.



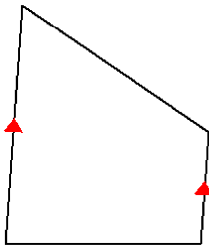
- 29.



30.

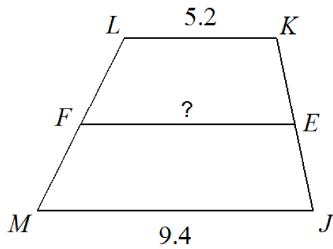


31.

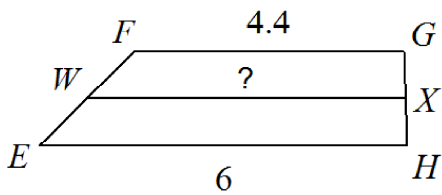


In 32-33, find the length of the median of each trapezoid.

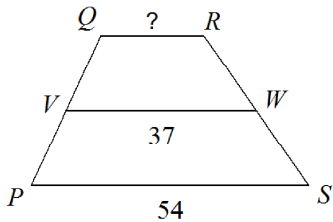
32.



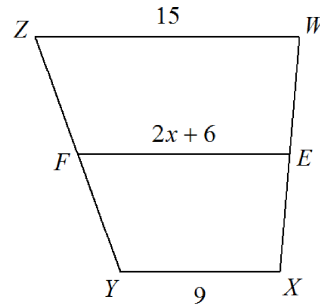
33.



34. Find the length of QR for trapezoid $QRSP$ with median VW .

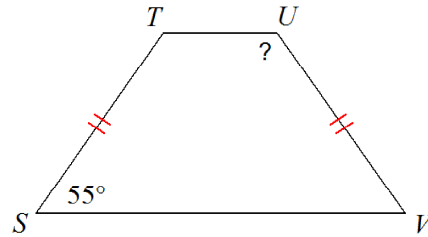


35. Find the value of x in the trapezoid.

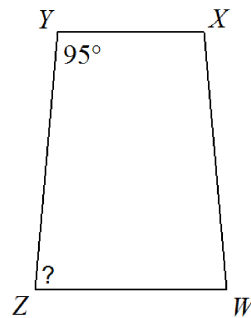


In 36-38, find the measure of the indicated angle for each trapezoid.

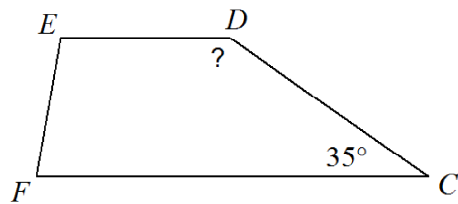
36.



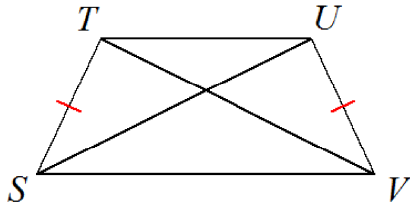
37.



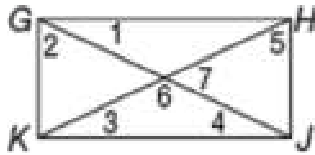
38.



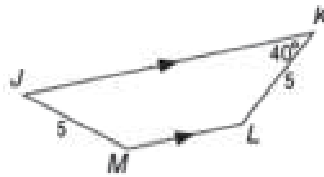
39. Find the value of x in the trapezoid if $TV = 22$ and $SU = 3x - 2$.



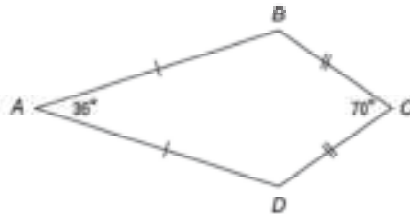
40. If a quadrilateral has the property “diagonals are perpendicular”, what are the names of the possible shapes?
41. If a parallelogram has the property “four right angles”, what shape MUST the parallelogram be?
42. For rectangle GHJK, find all missing angle measurements if $m\angle 1 = 37^\circ$.



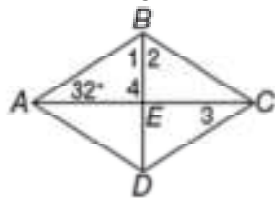
43. Find $m\angle L$



44. Find $m\angle D$



45. For rhombus $ABCD$, find the measurements of the numbered angles.



Define the following:

46. Parallelogram
47. Rectangle
48. Rhombus
49. Square
50. Trapezoid
51. Kite