Name _____ Class _____ Date _____

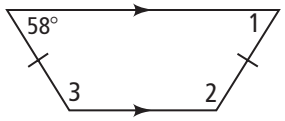
6-6 Practice

Form K

Trapezoids and Kites

Find the measures of the numbered angles in each isosceles trapezoid.

1.

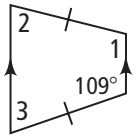


To start, identify which angles are congruent to and supplementary to the known angle.

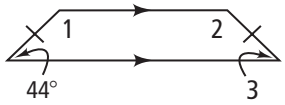
$\angle$ [1] is congruent to the 58° angle.

$\angle$ [2] and $\angle$ [3] are supplementary to the 58° angle.

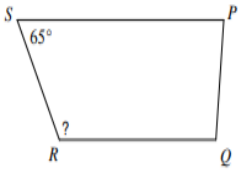
2.



3.



4.



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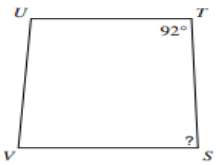
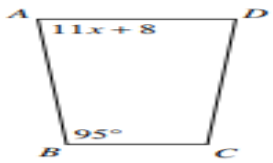
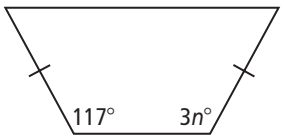


6.

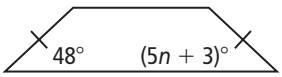


Algebra **Find the value of the variable in each isosceles trapezoid.**

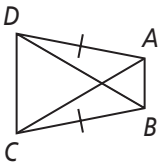
7.



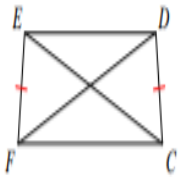
8.



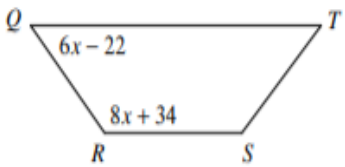
9. $AC = x + 5$
$BD = 2x - 2$



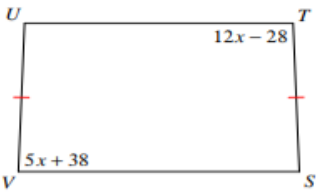
10. $EC = 20$
$FD = 5x - 10$



11. Find $m\angle R$



12. Find $m\angle V$



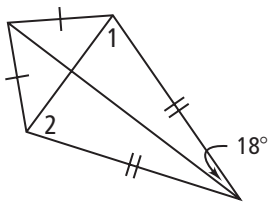
Name _____ Class _____ Date _____

6-6 Practice (continued) *Form K*

Trapezoids and Kites

Find the measures of the numbered angles in each kite.

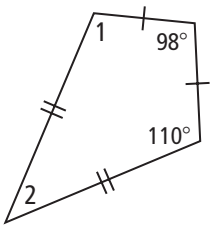
14.



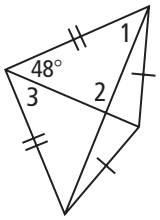
To start, since the diagonals of a kite are perpendicular and the angle measures of a triangle add up to 180, write an equation with $m\angle 1$.

$m\angle 1 + \boxed{90} + \boxed{18} = 180$

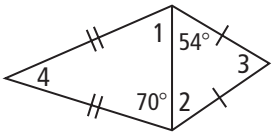
15.



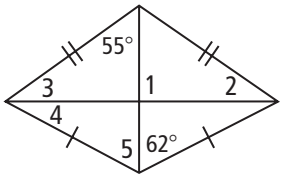
16.



17.

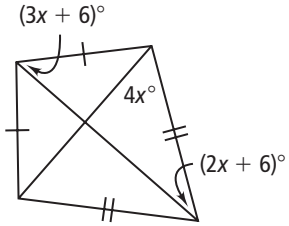


18.

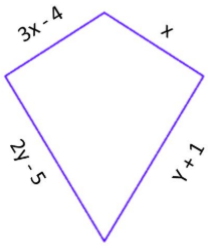


Algebra Find the value(s) of the variable(s) in each kite.

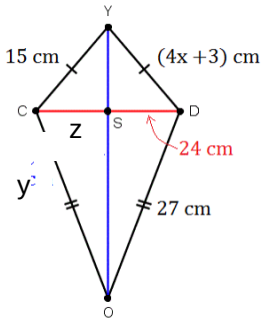
19.



20.



21.



Determine whether each statement is *true* or *false*. Justify your response.

22. All kites are quadrilaterals.

23. A kite is a parallelogram.

24. A kite can have congruent diagonals.

25. Both diagonals of a kite bisect angles at the vertices.