

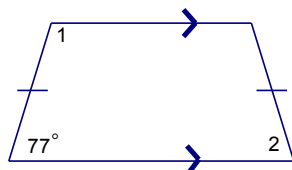
Name: _____ Class Period: _____ Date: _____

Alpha Geometry

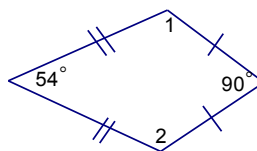
Chapter 5 Worksheet 5.5c ~ Properties of Trapezoids and Kites

Find the measures of $\angle 1$ and $\angle 2$.

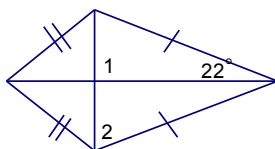
1.



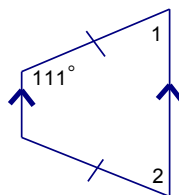
2.



3.



4.



6. The perimeter of a kite is 66 cm. The length of one of its sides is 3 cm less than twice the length of another. Find the length of each side of the kite.

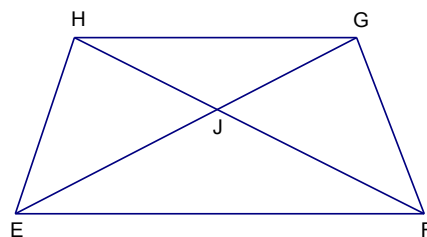
7. EFGH is an isosceles trapezoid, with legs \overline{HE} and \overline{GF} .

$$EJ = x + 5$$

$$JG = 2x - 1$$

$$HF = 13$$

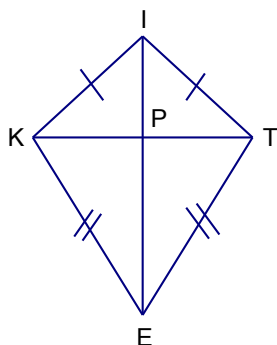
Find: EJ, JG, and HJ.



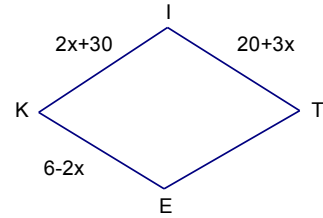
8. $m\angle IPT = 5x - 10$

$$KP = 6x$$

Find KT



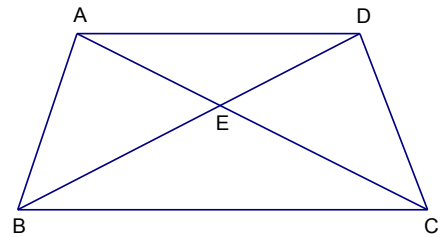
9. An author wrote a problem involving kite KITE, but forgot to say which pairs of sides were congruent. Work the problem twice to see which pairs of sides are congruent.



10. ABCD is an isosceles trapezoid with upper base \overline{AD} .

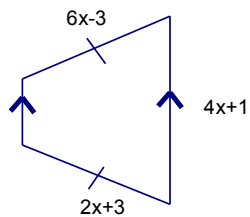
$$BE = x + 7, CE = y - 3, AE = x + 5, BD = y + 4$$

Find AC.

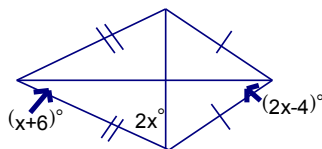


Find the value of the variable(s).

11.



12.



13.

