Trapezoid:

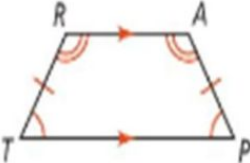**Isosceles Trapezoid:**
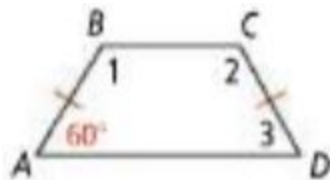
6.21	If a trapezoid is isosceles, then each pair of base angles is congruent	
6.22	If a trapezoid has one pair of congruent base angles, then it is an isosceles trapezoid	
6.23	A trapezoid is isosceles if and only if its diagonals are congruent	

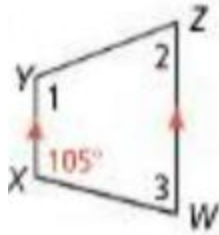1. Find the measure of each numbered angle in the isosceles trapezoids below:
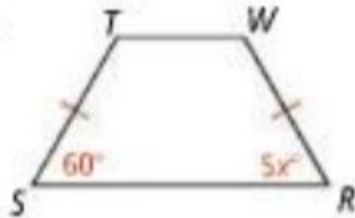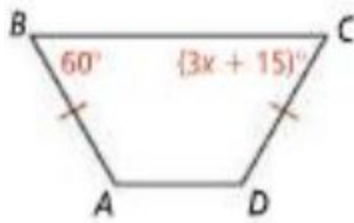   a.

   b.

c.

2. Find the value of the variables in each isosceles trapezoid:
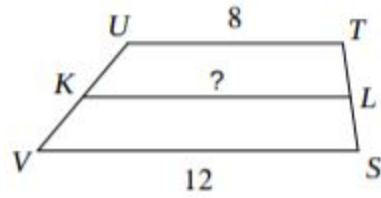
a.

b.

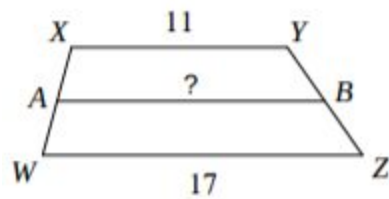

Midsegment of a Trapezoid:

Midsegment Theorem for Trapezoids	The midsegment of a trapezoid is parallel to each base and its length is half the sum of of the lengths of the bases	

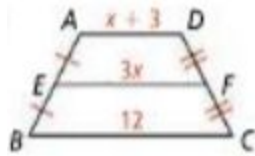3. Find the length of each midsegment:
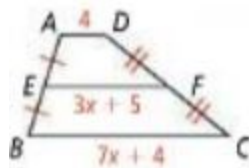
   a.

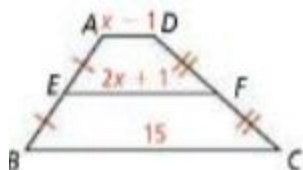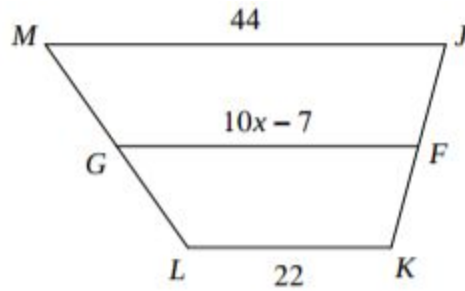
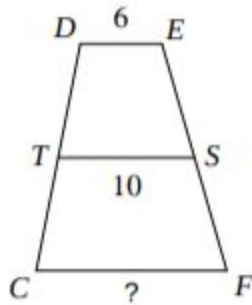   b.

4. Find the value of the variables:

   a.

   b.

   c.

d.

5. Find the length of the base of the trapezoid:
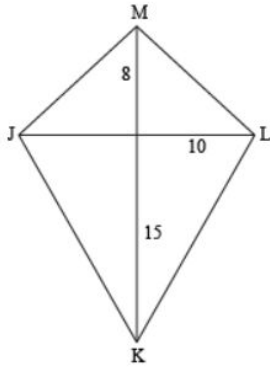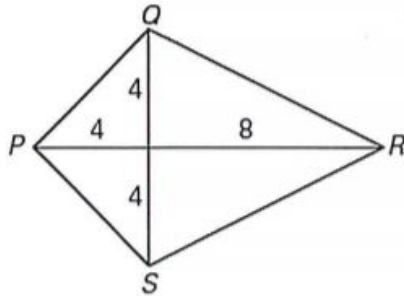

Kite:

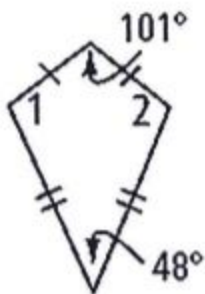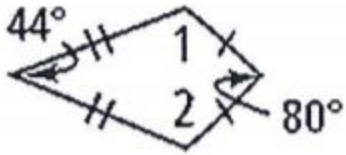|	If a quadrilateral is a kite, then its diagonals are perpendicular	
	If a quadrilateral is a kite then exactly one pair of opposite angles are congruent	

6. Calculate the perimeter of the Kite below:

a.

b.

7. Find the missing angles of the kites below:

a.

b.

44° ⧸⧸ 1
       ⧸⧸ 2   80°

c.

E
4

K ⟨100°   3⟩ T

20°
I