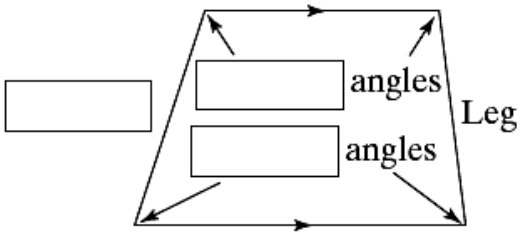
Name:_____Per:_____

6-5 Trapezoids and Kites



Trapezoids

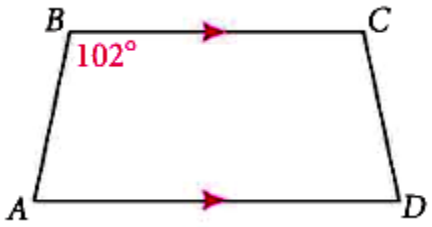
Theorem 6-15

The base angles of an isosceles trapezoid are _____.

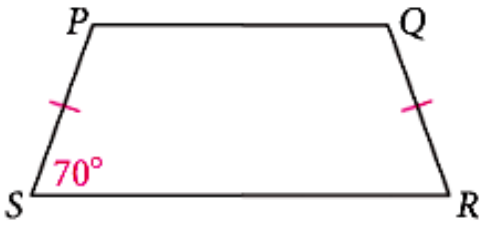
Theorem 6-16

The _____ of an isosceles trapezoid are congruent.

$ABCD$ is an isosceles trapezoid and $m\angle B = 102$. Find $m\angle A, m\angle C$, and $m\angle D$.



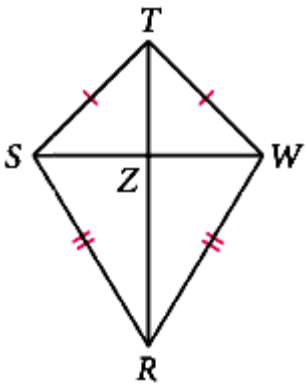
In the isosceles trapezoid, $m\angle S = 70$. Find $m\angle P, m\angle Q$, and $m\angle R$.



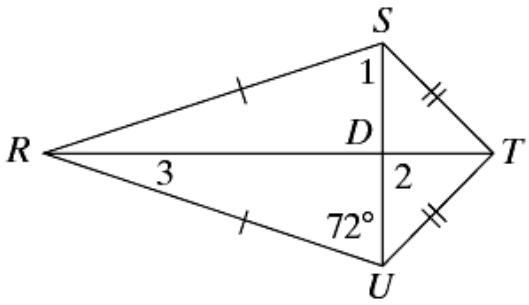
Kites

Theorem 6-17

The diagonals of a kite are _____.



Finding Angle Measures in Kites Find $m\angle 1, m\angle 2$, and $m\angle 3$ in the kite.

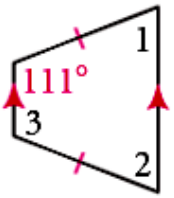


$m\angle 2 = 90$	Diagonals of a kite are ☐.
$RU =$ ☐	Definition of a kite
$m\angle 1 =$ ☐	☐ Triangle Theorem
$m\angle 3 + m\angle RDU + 72 =$ ☐	☐
$m\angle RDU =$ ☐	Diagonals of a kite are perpendicular.
$m\angle 3 +$ ☐ $+ 72 =$ ☐	Substitute.
$m\angle 3 +$ ☐ $=$ ☐	Simplify.
$m\angle 3 =$ ☐	Subtract ☐ from each side.

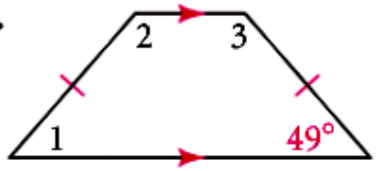
Each trapezoid is isosceles. Find the measure of each angle.

1.

2.

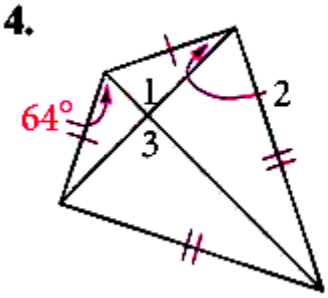


3.

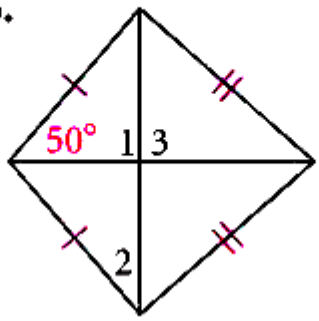


Find the measures of the numbered angles in each kite.

4.



5.



6.