Geometry
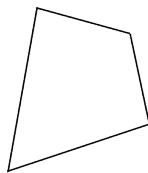**6-6 Notes**

Degrees in a Quadrilateral

How many degrees to you think the quadrilateral has?

In other words, $m\angle A + m\angle B + m\angle C + m\angle D = ?$

All degrees in <u>ANY</u> quadrilateral add to _____!!
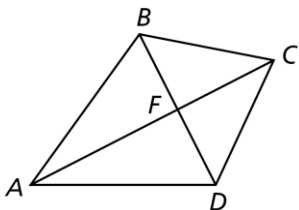
Kite Examples:

1. In kite ABCD, m∠DAB = 54˚ and m ∠CDF = 52˚.
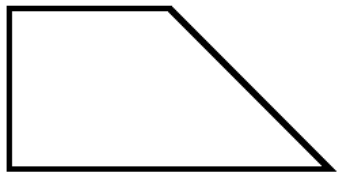
   a. Find m∠DBC   b. Find $m\angle$BCD   c. Find m∠FDA   d. Find m∠ABC

TRAPEZIODS:

<u>Definition:</u> A trapezoid is a quadrilateral with _____.

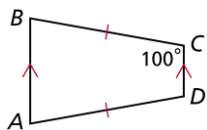**Each of the parallel sides is called a _____.

**The non-parallel sides are called the _____.

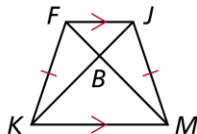**The _____ _____ of a trapezoid are two consecutive angles whose common side is a base.

ISOSCELES TRAPEZOIDS:

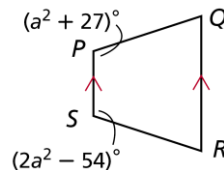Use the hand-out with your group to add to the diagram properties of isosceles trapezoids….
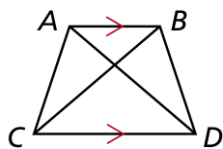
1. Find m∠A.

2. KB = 21.9 m and MF = 32.7 m
   Find FB.

3. Find the value of a so that PQRS is isosceles

$(a^2 + 27)°$

$(2a^2 - 54)°$

4. AD = *12x – 11,* and BC = *9x-2.* Find the value of
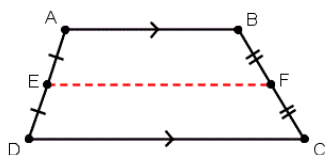   *X* so that ABCD is isosceles.

Midsegments of Trapezoids

Review: A midsegment of a triangle connects two _____ of the sides of the triangle.

In a trapezoid, the midsegment connects the _____ of the _____.

Trapezoid Midsegment Theorem
** _____ to each base   ** The length is _____ the _____ of the _____

Example:

1. Find EH.