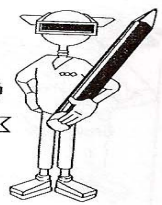
Date 5/8/2011

COURSE: **MSC III**
MODULE 5: **Geometry**
UNIT 1: **Measurement**

# rallelograms and apezoids




**you work through the tutorial, complete the following.**

What is your mission for this lesson? explore quadrilateral and triangles

quadrilateral is a four-sided closed figure.

parallelogram is a quadrilateral that has two pairs of parallel sides.

rectangle is a special kind of parallelogram with 4 right angles.

parallelograms:

opposite angles have the same measure.
opposite sides have the same length.

quare is a rectangle with four equal sides. A square lso a parallelogram because all rectangles are arallelograms.

ombus is a parallelogram with four equal sides

**Key Words:**
Quadrilateral
Parallelogram
Diagonal of a quadrilateral
Rhombus
Trapezoid
Congruent triangles

**Learning Objectives:**
- Explore the properties of a parallelogram.
- Discover the area formula of a parallelogram.
- Explore the properties of a trapezoid.
- Discover the area formula of a triangle.

**8. a.** The area $A$ of a parallelogram is equal to its base times its height.

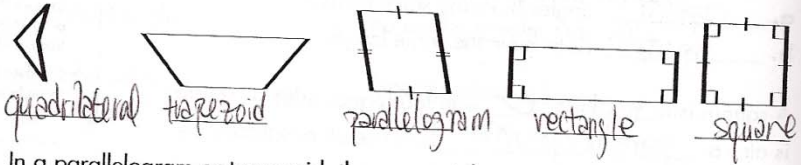
**b.** A segment that is perpendicular to the base represents the height of the parallelogram.

**c.** We can label the base $b$ and the height $h$.

**d.** The area formula for a parallelogram is $A = b \times h$.

**9.** A trapezoid is a quadrilateral that has one pair of parallel sides.

**10.** Label each type of quadrilateral shown below.




**11.** In a parallelogram or trapezoid, the segment that connects opposite vertices is called a diagonal.

**12.** Triangles that have exactly the same size and shape are congruent triangles. The symbol $\cong$ shows that one triangle is congruent to another triangle.

**13.** The area $A$ of a right triangle is equal to $\frac{1}{2} \times (b) \times (h)$ base $\times$ height.

**14.** The height of a right triangle is a perpendicular segment drawn from a vertex to the opposite side.

# Homework (due May 15)

Math III

Pages 161 -180 all

Math IV

Pages 161-180 all

Math Olympiad , Chapter 8, #1-20

Next week (May 15), please go to the school-wide graduation ceremony where we will present the Math Olympiad Awards.