

#### **POLYGON SUM FORMULA**

# The sum of all the angles in an *n*-gon (any polygon) is \_\_\_\_\_.



### <u>EQUIANGULAR POLYGON</u> <u>FORMULA</u>

The measure of one angle in any equiangular polygon can be found with the expression:





### POLYGON EXTERIOR ANGLE THEOREM

The sum of the exterior angles in any polygon is \_\_\_\_\_ degrees









#### **KITE DIAGONALS THEOREM**

#### **Diagonals of a kite are**



#### KITE DIAGONAL BISECTOR THEOREM

The diagonal connecting the vertex angles the non-vertex angle diagonal



#### **KITE ANGLES THEOREM**

#### Non-vertex angles of a kite are \_



#### **KITE ANGLE BISECTOR THEOREM** The vertex angles of a kite are \_\_\_\_\_\_ by the \_\_\_\_\_\_.



### **TRAPEZOID** A quadrilateral with exactly one pair of parallel sides





### TRAPEZOD A quadrilateral with exactly one pair of parallel sides





#### **TRAPEZOID CONSECUTIVE ANGLE THEOREM** Consecutive angles between bases are



#### **ISOSCELES TRAPEZOID THEOREM** Base angles in an isosceles trapezoid are



#### **ISOSCELES TRAPEZOID DIAGONAL THEOREM** Diagonals in an isosceles trapezoid are



#### TRAPEZOID MIDSEGMENT THEOREM

#### The midsegment of a trapezoid is \_\_\_\_\_\_ to the bases and its length is the \_\_\_\_\_ of the two bases.

# What is a Parallelogram?

- > Opposite sides are parallel
- > Opposite sides are congruent
- > Opposite angles are equal
- Consecutive angles supplementary
- Diagonals bisect eachother

# What is a Rectangle?

- Rectangles are special parallelograms
  - Has all the properties of a parallelogram
- > All angles are congruent
  - Each angle is 90°



# What is a Rhombus?

- Rectangles are special parallelograms
  - Has all the properties of a parallelogram
- Has four congruent sides
- Sometimes called a diamond



## What is a Square?

#### Squares are special parallelograms

- Has all the properties of a parallelogram
- A square is a kind of rectangle
  - Each angle is 90°
- > A square is also a special rhombus
  - All sides are congruent



### What is a Square?

- > A square is an equilateral rectangle
- > A square is an equiangular rhombus
- > A regular quadrilateral

