

# Quadrilateral Flowchart

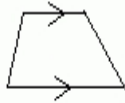
## Quadrilateral

4 sided polygon (2 - D)

Sum of internal angles = 360

### Trapezoid

Exactly one pair of // sides



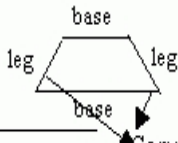
### Isosceles Trapezoid

Legs  $\cong$

Common base angles  $\cong$

Uncommon base angles supplementary

Diagonals are congruent



### Rectangle



At least 1 right, (all right angles)

Diagonals are  $\cong$

### Rhombus



At least 2 consecutive sides  $\cong$  (all sides  $\cong$ )

Diagonals bisect angles

Diagonals  $\perp$  bisectors

Diagonals form 4  $\cong$  right triangles

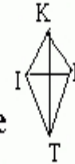
### Square



Both a rectangle and rhombus

Diagonals form 4  $\cong$  isosceles right Triangles

### Kite



2 disjoint pairs of consecutive sides  $\cong$

Definition of perpendicular

Diagonals  $\perp$  bisect (KT)

Diagonals bisect opposite angles

1 set of opposite angles  $\cong$

Note: Once the property is listed, it filters down to all other shapes.

i.e. Quadrilaterals have 360 degrees, so every 4-sided figure has 360 degrees.

#### KEY

$\sphericalangle$  Angle

$\cong$  Congruent

// Parallel

$\perp$  Perpendicular