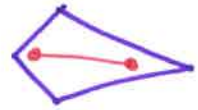


~~Many sides~~

Identifying and Classifying Polygons

Polygon: A closed plane figure whose sides are segments that intersect only at their endpoints.

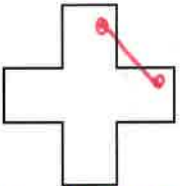
Regular Polygon: All sides have the same length.
All angles have the same measure.

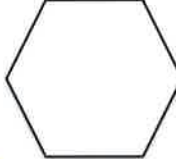


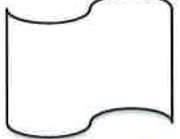
Convex: If a segment joining any two interior points lies completely within the polygon

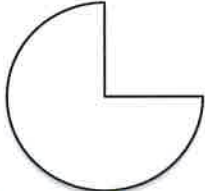
Concave: A polygon that is not convex

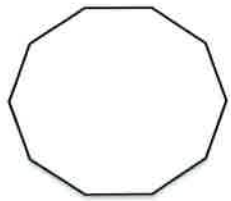


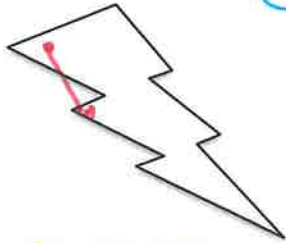
1) 
 Dodecagon
 Concave

2) 
 Hexagon
 Convex

3) 
 Not a polygon
 (curved)

4) 
 Not a polygon
 (curved)

5) 
 Decagon
 Convex

6) 
 11-gon
 Concave

# of Sides	Polygon
3	Triangle
4	Quadrilateral
5	Pentagon
6	Hexagon
7	Heptagon
8	Octagon
10	Decagon
12	Do-decagon
n	n -gon

$(n-2)180$

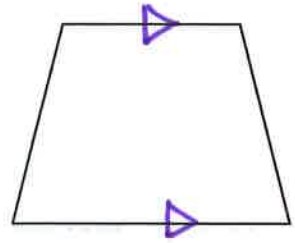
Sum of the angles

(4 sides)

Identifying and Classifying Quadrilaterals

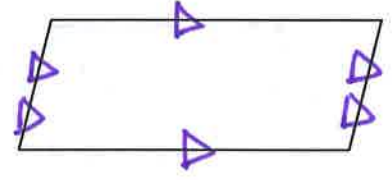
A. Trapezoid: Quadrilateral with exactly one pair of parallel sides.

Polygon
Quadrilateral
Trapezoid



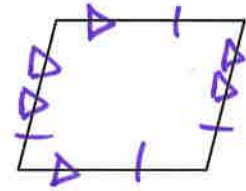
B. Parallelogram: Quadrilateral with two pairs of parallel sides

Polygon
Quadrilateral
parallelogram



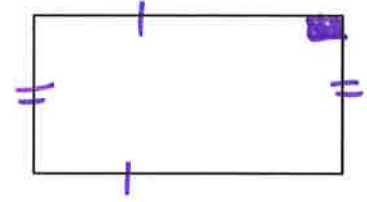
C. Rhombus: Parallelogram with 4 congruent sides

Polygon
Quadrilateral
Parallelogram
Rhombus



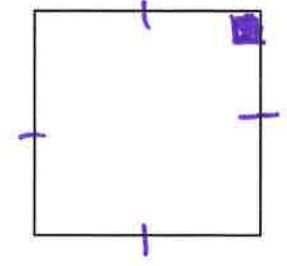
D. Rectangle: Parallelogram with 4 right angles

Polygon
Quadrilateral
Parallelogram
Rectangle



E. Square: Parallelogram with 4 right angles and 4 congruent sides

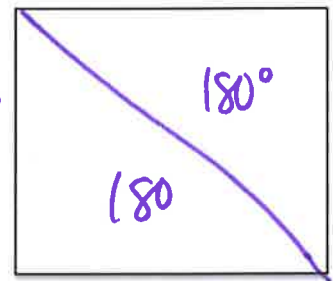
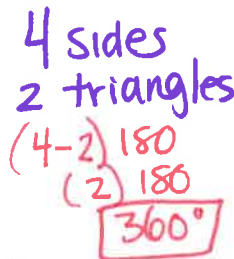
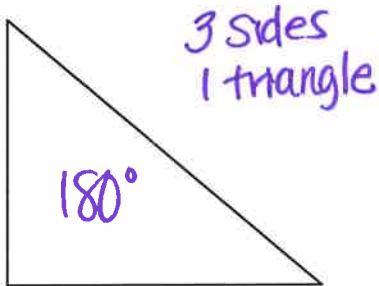
Polygon
Quadrilateral
parallelogram
Rhombus
Rectangle
square



Degrees in a Polygon

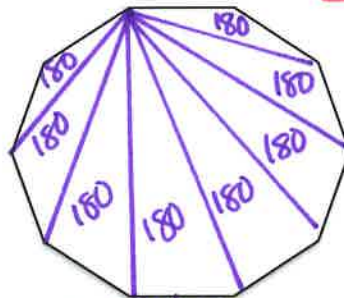
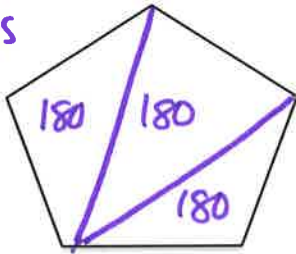
Formula: $(n-2)180$ # of sides

Sum of Interior Angles:



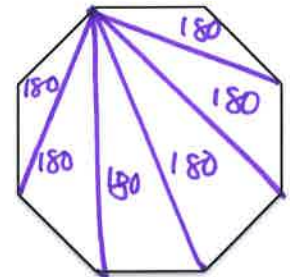
5 sides
3 triangles

$(5-2)180$
 $(3)180$
 540°



10 Sides
8 triangles

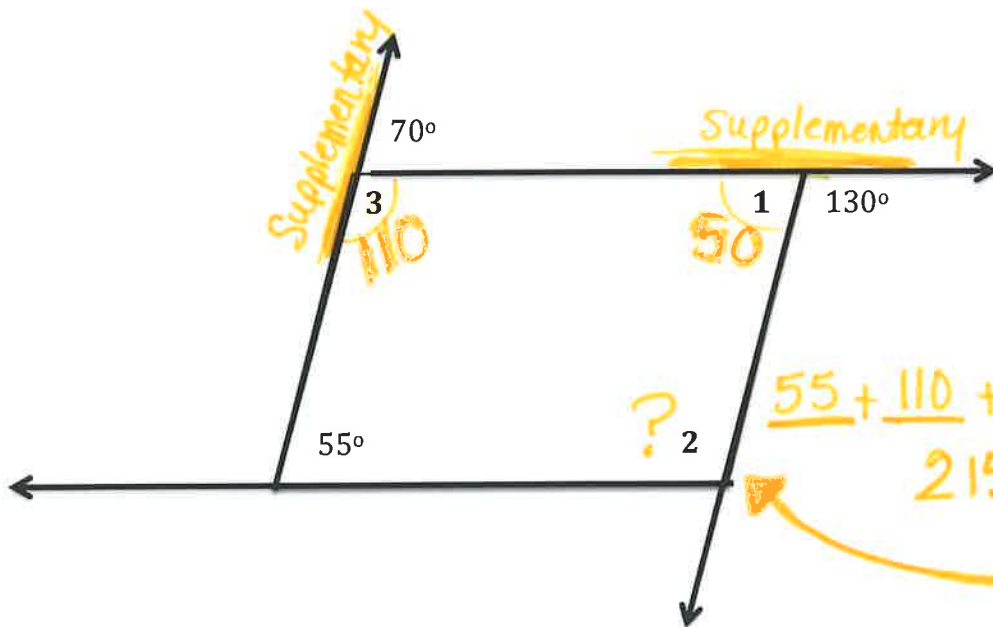
$(10-2)180$
 $(8)180$
 1440°



8 sides
6 triangles

$(8-2)180$
 $(6)180$
 1080°

Find the missing angle measures:



$55 + 110 + 50 + X = 360$
 $215 + X = 360$
 $X = 145^\circ$

