



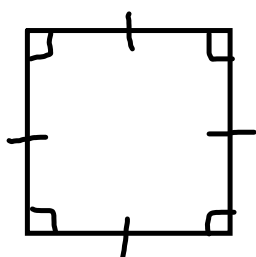
7.2 Angle Relationships in Quadrilaterals

Learning Goals:

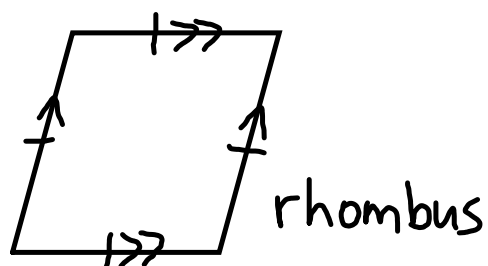
You will know the sum of interior angles and of exterior angles in quadrilaterals, and use this understanding to solve problems.

7.2 Angle Relationships in Quadrilaterals.

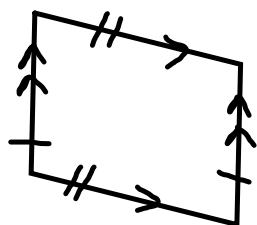
Quadrilaterals are polygons with four sides. Some special ones are:



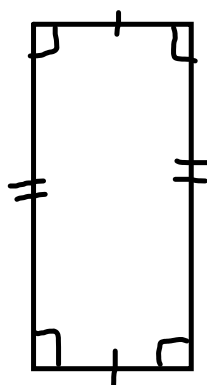
Square



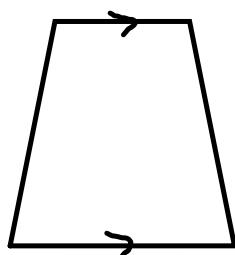
rhombus



parallelogram

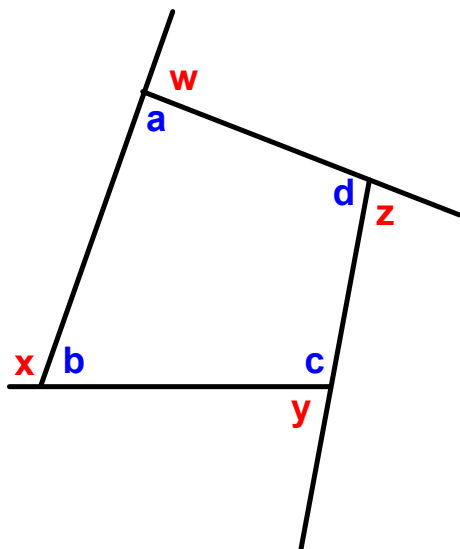


rectangle



trapezoid

The Sum of Interior and Exterior Angles in Quadrilaterals:

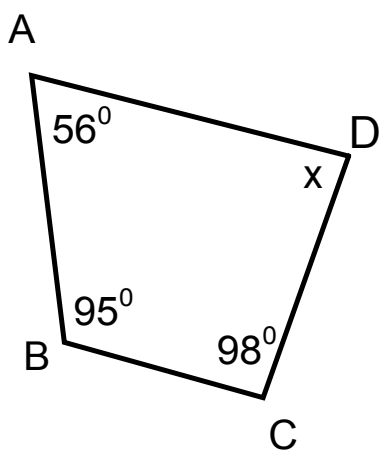


INTERIOR:
 $a+b+c+d=360^\circ$

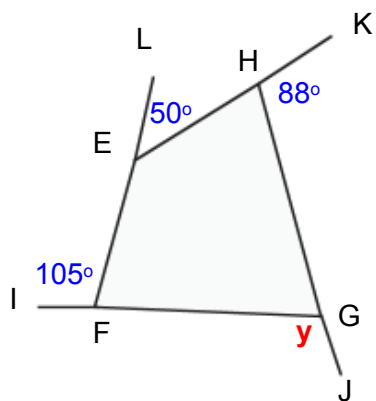
EXTERIOR:
 $w+x+y+z=360^\circ$

Ex. 1 Find the measure of the unknown angle in each quadrilateral.

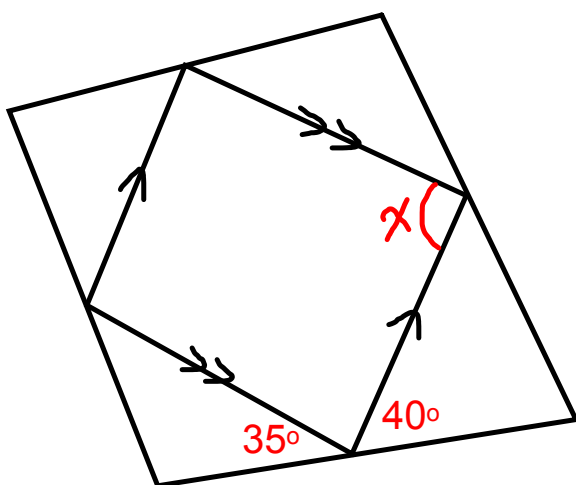
a)



b)



Ex. 2 A parallelogram is inscribed in a quadrilateral as shown. Find the value of the unknown.



Some properties of angles in parallelograms:

- Adjacent angles are supplementary (sum of 180°)
- Opposite angles are equal

Homework: pg 381 #1ac, 5, 6, 7, 9, 12, 13,