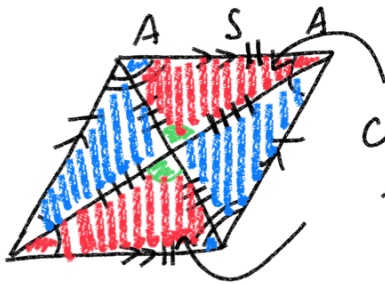


- opposite parallel sides
- opposite congruent sides
- opposite congruent angles

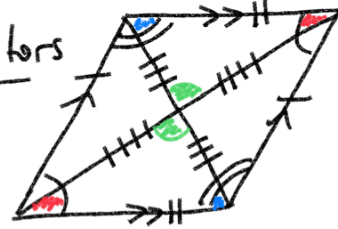
parallelogram

All parallelograms have diagonal bisectors

vertical angles



Congruent triangles
ASA AAS
SAS
SSS

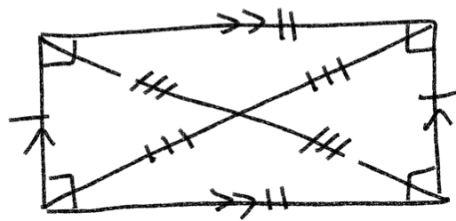
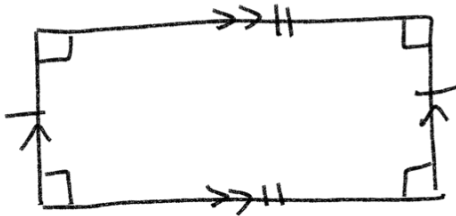


Alternate Interior Angles

Alternate Interior Angles

parallelograms consist of

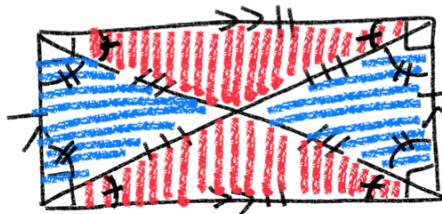
2 pairs of congruent triangles



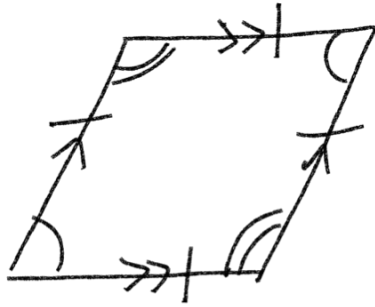
diagonal bisectors

Rectangle \rightarrow Diagonals are all congruent

* 4 congruent angles

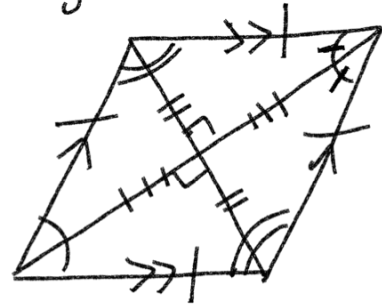


2 pairs of congruent isosceles triangles

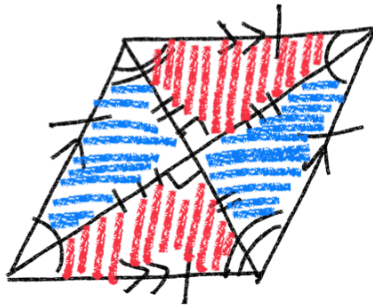


* Rhombus
4 congruent sides

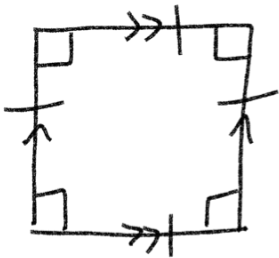
Diagonals are angle bisectors



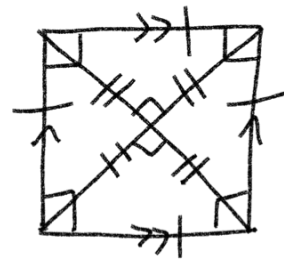
* Diagonals are perpendicular bisectors



2 pairs of congruent right triangles



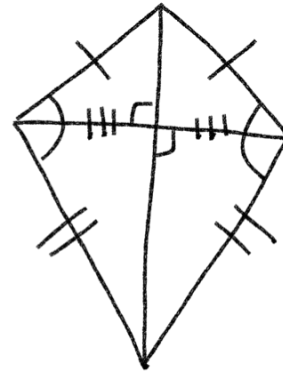
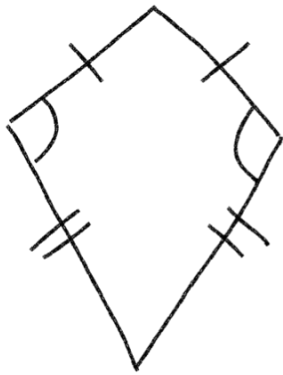
Square
- parallelogram ✓
- rectangle: 4 congruent angles
- rhombus: 4 congruent sides



Square
- parallelogram diagonals bisector
- rectangle: all bisectors are congruent
- rhombus: all are perpendicular bisectors



- parallelogram: ~~2 pairs~~ **all are** congruent triangles
- rectangle: isosceles
- rhombus: right



one diagonal bisector

kite
adjacent congruent sides

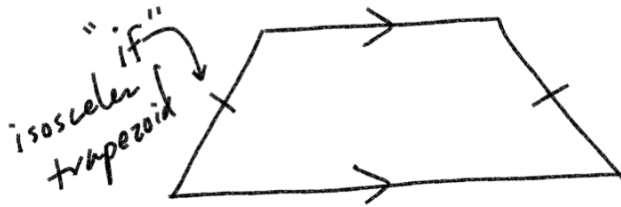
Contains
2 different
(large) isosceles
triangles

isosceles
triangle

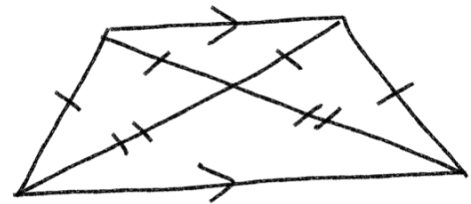
isosceles
triangle

congruent
triangles
SAS
HL

congruent
triangles



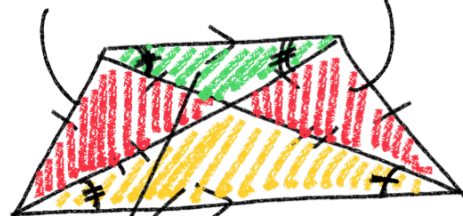
"if"
isosceles
trapezoid



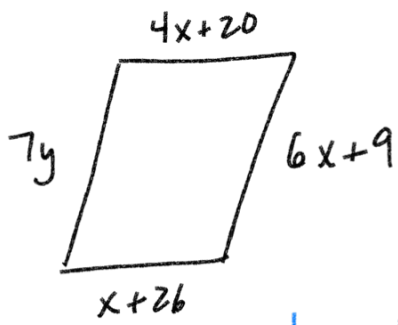
Trapezoid
1 pair of opposite parallel sides

congruent
triangles

similar triangles



①



Parallelogram

opposite congruent

$$7y = 6x + 9$$

$$7y = 6(2) + 9$$

$$x + 26 = 4x + 20$$

$$-x \quad -x$$

$$26 = 3x + 20$$

$$-20 \quad -20$$

$$\frac{6}{3} = \frac{3x}{3}$$

$$\boxed{x = 2}$$

$$\frac{7y}{7} = \frac{21}{7} \quad \boxed{y = 3}$$

$$4x - 10 + x + 15 + 2x = 180$$

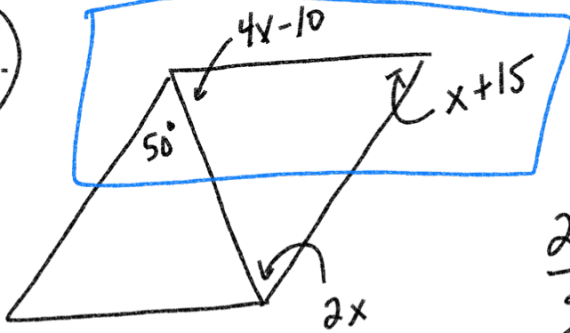
$$7x + 5 = 180$$

$$-5 \quad -5$$

$$\frac{7x}{7} = \frac{175}{7}$$

$$\boxed{x = 25}$$

②

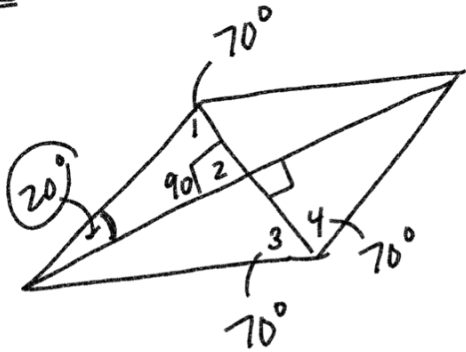


Supplemental

$$\frac{2x}{2} = \frac{50}{2}$$

$$\boxed{x = 25}$$

Rhombus



$$\angle 1 = 70^\circ$$

$$\angle 2 = 90^\circ$$

$$\angle 3 = 70^\circ$$

$$\angle 4 = 70^\circ$$

HW

ch 6-4 (evens)
6-5 (evens)

No Supplemental WS

Online HW 27 } due April 29th
Quiz 27 }

HW/Q 25 due tonight
HW/Q 26 April 23rd

