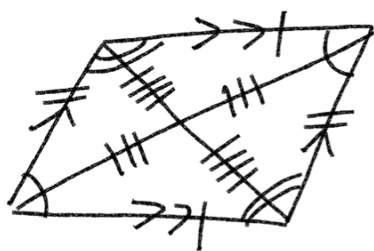
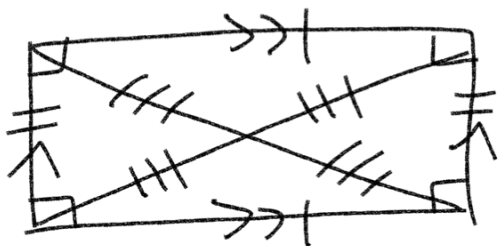


Parallelogram



True for all parallelograms

-Diagonals are bisectors

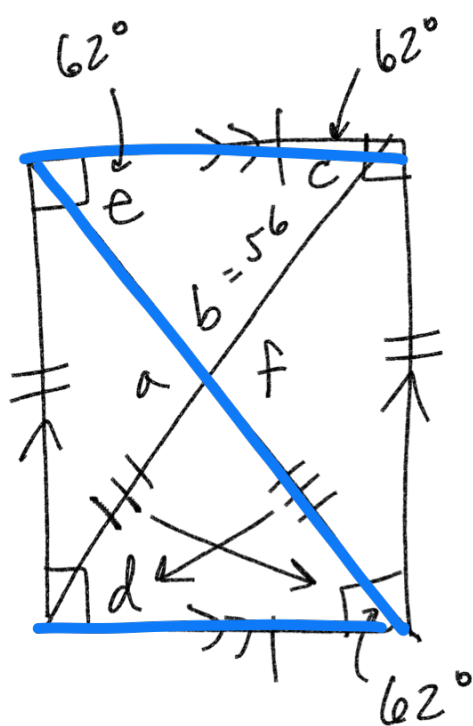


Rectangle

4 angles congruent

-Diagonals are congruent

2 pairs of isosceles triangles



$a = 124^\circ$ linear pair

$b = 56^\circ$ sum of interior angles in triangle

$c = 62^\circ$ isosceles

$d = 62^\circ$ isosceles

$e = 62^\circ$ Alt. Int.

$f = 124^\circ$ vertical

$$b + e + c = 180^\circ$$

$$b + 62 + 62 = 180^\circ$$

$$b + 124 = 180^\circ$$

$$\begin{array}{r} -124 \quad -124 \\ \hline \end{array}$$

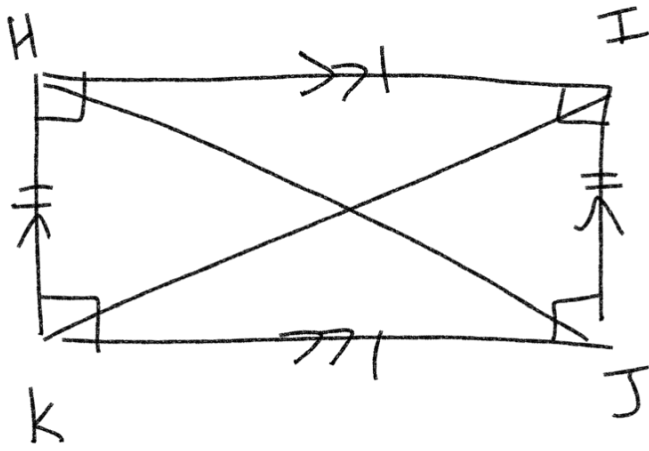
$$b = 56$$

$$a + b = 180^\circ$$

$$a + 56 = 180$$

$$\begin{array}{r} -56 \quad -56 \\ \hline \end{array}$$

$$a = 124$$



$$HJ = 3x + 7$$

$$IK = 6x - 11$$

$$\overline{HJ} = \overline{IK}$$

$$\downarrow \quad \downarrow$$

$$3x + 7 = 6x - 11$$

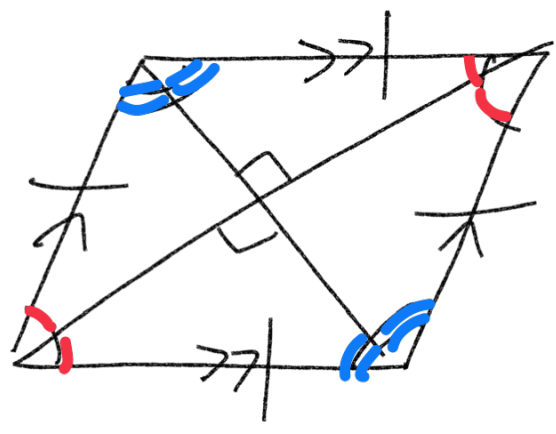
$$-3x \quad -3x$$

$$7 = 3x - 11$$

$$+11 \quad +11$$

$$\frac{18}{3} = \frac{3x}{3}$$

$X = 6$



Rhombus

4 equal sides

- Diagonals are perpendicular bisectors

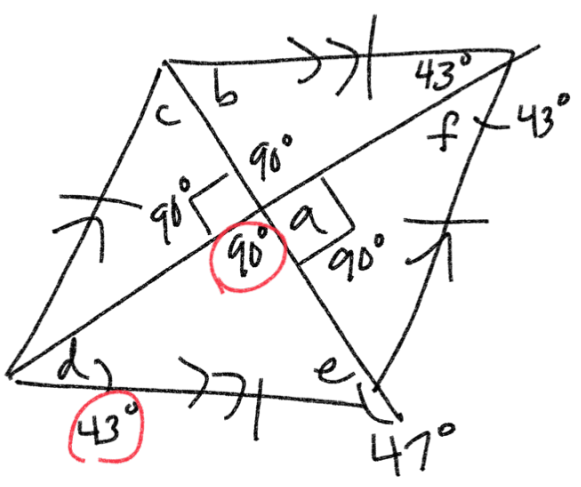
- Diagonals are angle bisectors

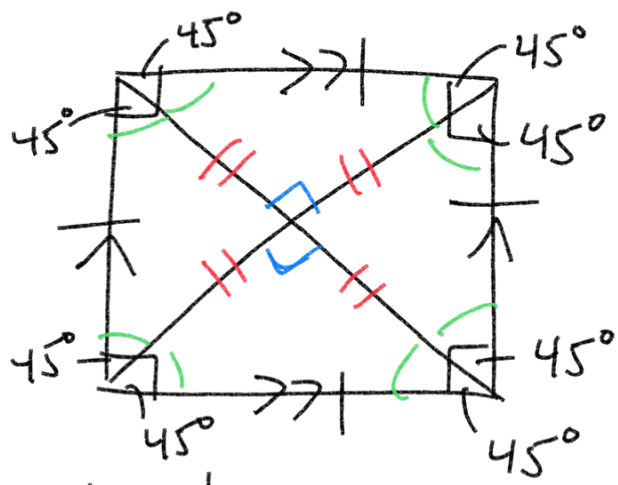
$a = 90^\circ$ perp bis $e = 47^\circ$

$b = 47^\circ$ Alt. Int

$c = 47^\circ$ angle bis

$d = 43^\circ$ Alt. Int





Square

4 equal angles

4 equal sides

parallelogram

- diagonals are bisectors

Rectangle

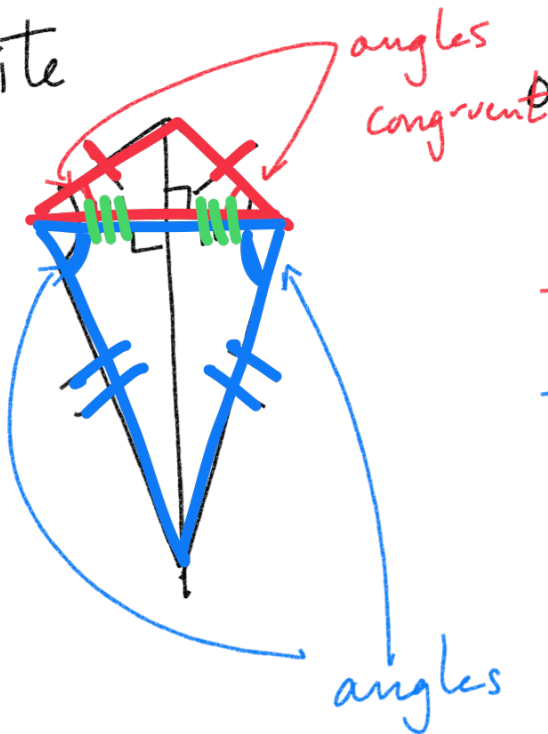
- diagonals are congruent

Rhombus

- diagonals are perpendicular bisector

- diagonals are angle bisectors

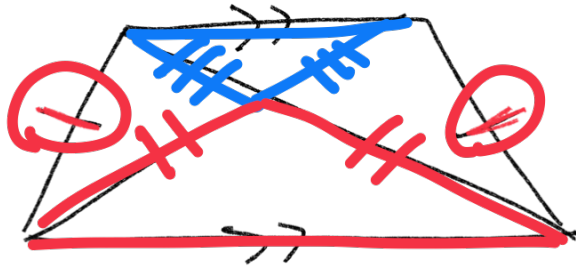
Kite



one diagonal features a perpendicular bisector

Isosceles Triangle

Isosceles Triangle

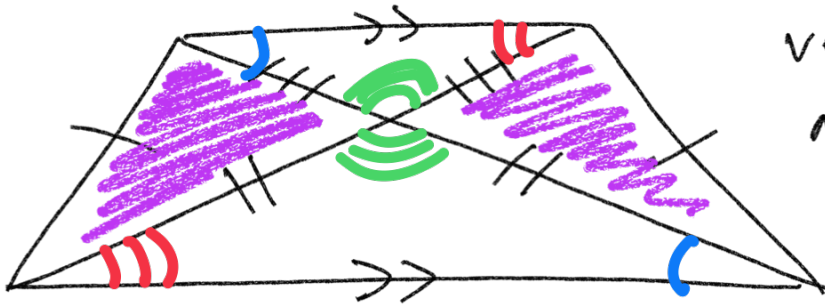


Trapezoid

Isosceles Trapezoid

Creates two
isosceles triangles

vertical and
alt. interior
angles



congruent triangles