

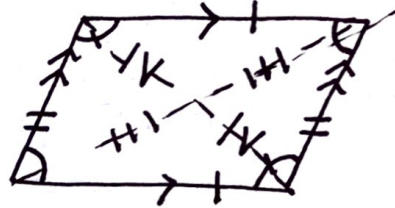
QUADRILATERAL ATTRIBUTES P.17

Quadrilateral

- 4-sided figure

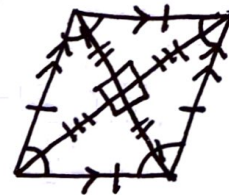
Parallelogram

- 2 pairs of opposite sides are parallel
- 2 pairs of opposite sides are congruent
- opposite angles are congruent
- consecutive angles are supplementary
- diagonals have the same midpoint (bisect each other)
- diagonals form two congruent triangles



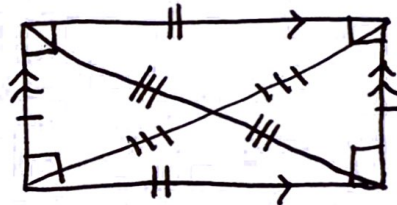
Rhombus

- 4 sides congruent (equilateral)/2 pairs of opposite sides are congruent
- 2 pairs of opposite sides are parallel
- opposite angles are congruent
- consecutive angles are supplementary
- diagonals have the same midpoint (bisect each other)
- diagonals are perpendicular
- diagonals bisect opposite angles
- diagonals form two congruent triangles



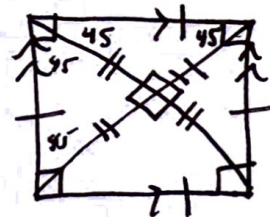
Rectangle

- 2 pairs of opposite sides are congruent
- 2 pairs of opposite sides are parallel
- 4 right angles (equiangular)
- opposite angles are congruent
- consecutive angles are supplementary
- diagonals have the same midpoint (bisect each other)
- diagonals are equal in measure (congruent)
- diagonals form two congruent triangles



Square

- 4 sides are congruent (equilateral)/2 pairs of opposite sides are congruent
- 2 pairs of opposite sides are parallel
- 4 right angles (equiangular)
- opposite angles are congruent
- consecutive angles are supplementary
- diagonals have the same midpoint (bisect each other)
- diagonals are equal in measure (congruent)
- diagonals are perpendicular
- diagonals bisect opposite angles
- diagonals form two congruent triangles



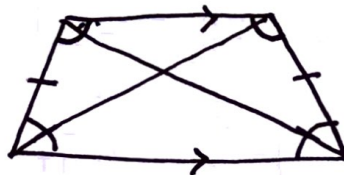
Trapezoid

- 1 pair of parallel sides



Isosceles Trapezoid

- 1 pair of parallel sides
- non-parallel sides are congruent
- diagonals are equal in measure (congruent)
- diagonals form two congruent triangles



Geometry

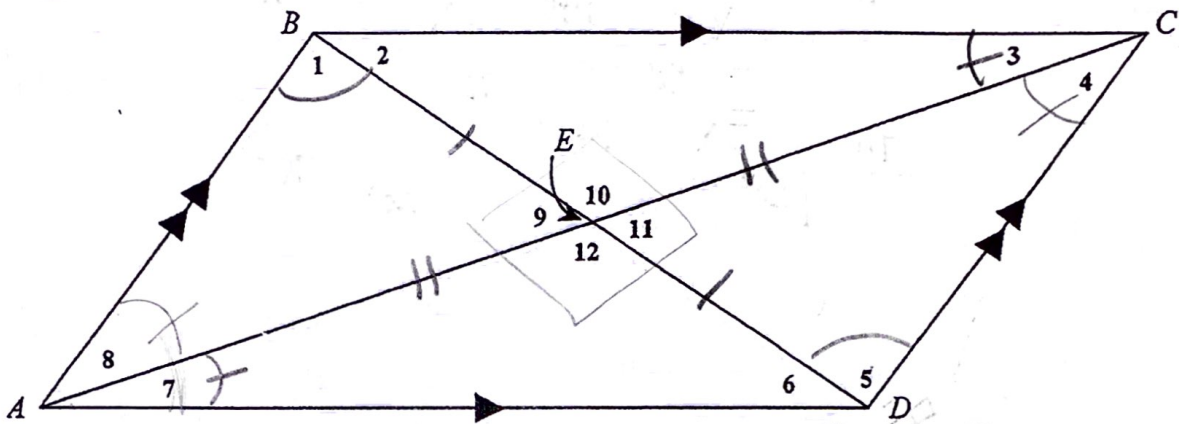
NAME: _____

WORKSHEET: *Parallelogram Properties*

PERIOD: _____ DATE: _____

Parallelograms – Using Properties

P.18



Complete each of the following: PARALLELOGRAM

- 1) $m\angle 1 = m\angle$ 5
- 2) $m\angle 7 = m\angle$ 3
- 3) $m\angle ABC = m\angle$ CDA
- 4) $m\angle BCD = m\angle$ DAB
- 5) $m\angle 9 = m\angle$ 11
- 6) $mBE = m$ ED
- 7) $mAB = m$ DC
- 8) $\triangle ABD \cong \triangle$ BCD
- 9) $\triangle CAB \cong \triangle$ ACD
- 10) $2 \cdot mBE = m$ BD
- 11) $mAD = m$ CB
- 12) $mAE = m$ CE
- 13) $\angle BAD$ is supplementary with \angle ABC and also with \angle ADC.

IF ABCD is a *rectangle*, then:

- 14) $m\angle ABC =$ 90°
- 15) $mAC = m$ BD
- 16) $m\angle 2 + m\angle 5 =$ 90°
- 17) $m\angle 2 = m\angle$ 6 = $m\angle$ 3 = $m\angle$ 7
- 18) The diagonals form 4 isosceles Δ 's

IF ABCD is a *rhombus*, then:

- 19) $m\angle 10 =$ 90°
- 20) $m\angle 2 + m\angle 3 =$ 90°
- 21) $mAB =$ = mBC
- 22) $m\angle 8 = m\angle$ 4 = $m\angle$ 3 = $m\angle$ 7

IF ABCD is a *square*, then:

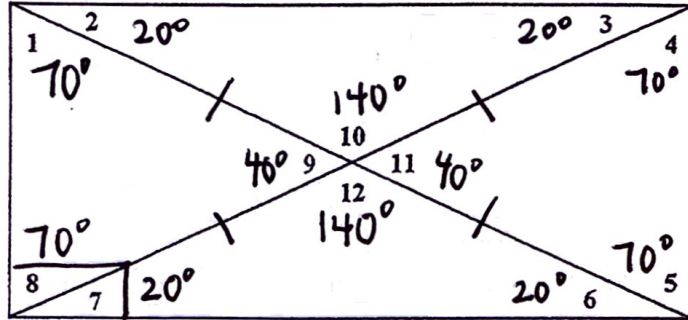
- 23) $mAC = m$ BD
- 24) $m\angle 9 = m\angle 10 = m\angle 11 = m\angle 12 =$ 90°
- 25) $m\angle 1 = m\angle 2 = m\angle 3 = m\angle 4 = m\angle 5 = m\angle 6 = m\angle 7 = m\angle 8 =$ 45°



Fill in all the numbered angles with the appropriate angle measures.

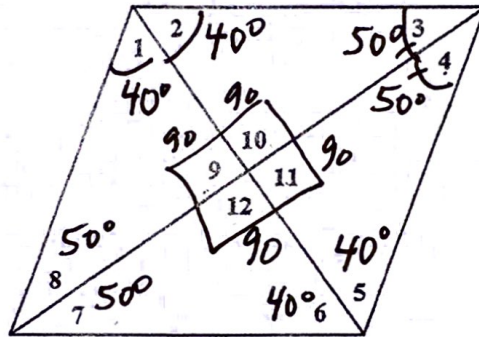
RECTANGLE...

$m\angle 1 = 70^\circ$



RHOMBUS...

$m\angle 1 = 40^\circ$



SQUARE...

