

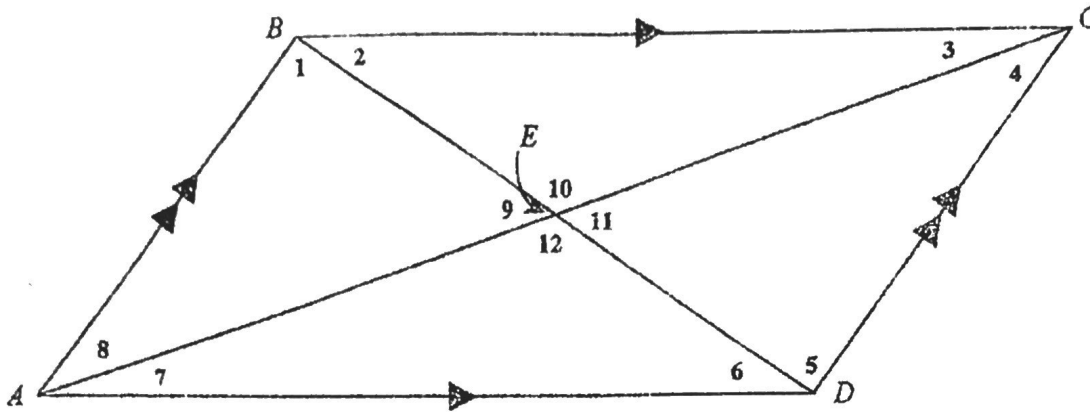
Geometry

NAME: _____

WORKSHEET: *Parallelogram Properties*

PERIOD: _____ DATE: _____

Parallelograms – Using Properties



Complete each of the following:

- 1) $m\angle 1 = m\angle$ _____
- 2) $m\angle 7 = m\angle$ _____
- 3) $m\angle ABC = m\angle$ _____
- 4) $m\angle BCD = m\angle$ _____
- 5) $m\angle 9 = m\angle$ _____
- 6) $mBE = m$ _____
- 7) $mAB = m$ _____
- 8) $\triangle ABD \cong \triangle$ _____
- 9) $\triangle CAB \cong \triangle$ _____
- 10) $2 \cdot mBE = m$ _____
- 11) $mAD = m$ _____
- 12) $mAE = m$ _____
- 13) $\angle BAD$ is supplementary with \angle _____ and also with \angle _____.

IF $ABCD$ is a *rectangle*, then:

- 14) $m\angle ABC =$ _____ $^\circ$
- 15) $mAC = m$ _____
- 16) $m\angle 2 + m\angle 5 =$ _____ $^\circ$
- 17) $m\angle 2 = m\angle$ _____ $= m\angle$ _____ $= m\angle$ _____
- 18) The diagonals form _____ isosceles Δ 's

IF $ABCD$ is a *rhombus*, then:

- 19) $m\angle 10 =$ _____ $^\circ$
- 20) $m\angle 2 + m\angle 3 =$ _____ $^\circ$
- 21) mAB _____ mBC
- 22) $m\angle 8 = m\angle$ _____ $= m\angle$ _____ $= m\angle$ _____

IF $ABCD$ is a *square*, then:

- 23) $mAC = m$ _____
- 24) $m\angle 9 = m\angle 10 = m\angle 11 = m\angle 12 =$ _____ $^\circ$
- 25) $m\angle 1 = m\angle 2 = m\angle 3 = m\angle 4 = m\angle 5 = m\angle 6 = m\angle 7 = m\angle 8 =$ _____ $^\circ$

Name _____ Date _____

PRACTICE

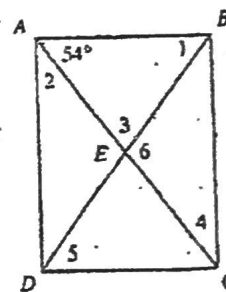
Properties of Rectangles and Squares

Complete the table. Place a check mark under the name of each figure for which the property is always true.

	Parallelogram	Rhombus	Rectangle	Square
1. The diagonals are perpendicular.				
2. The figure has four right angles.				
3. The opposite sides are congruent.				
4. The diagonals are congruent.				
5. The figure has four congruent sides.				
6. The diagonals bisect each other.				
7. The consecutive angles are supplementary.				
8. Each diagonal bisects a pair of opposite angles.				
9. The figure has exactly four lines of symmetry.				
10. The figure is a rectangle.				

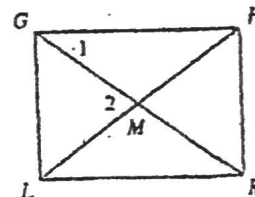
$ABCD$ is a rectangle, with $AC = 18$. Find each length or angle measure.

11. $m\angle BCD$ _____ 12. $m\angle 1$ _____ 13. $m\angle 2$ _____
 14. $m\angle 3$ _____ 15. $m\angle 4$ _____ 16. $m\angle 5$ _____
 17. $m\angle 6$ _____ 18. AE _____ 19. DB _____



$GHLK$ is a rectangle that is not a square. Answer true or false.

20. $GHLK$ and its diagonals form four congruent triangles. _____
 21. $GHLK$ and its diagonals form four isosceles triangles. _____
 22. $\angle 1 \cong \angle 2$ _____
 23. $\triangle GHL \cong \triangle KHL$ _____
 24. \overline{GK} is a line of symmetry. _____
 25. $\triangle GML \cong \triangle HMK$ _____
 26. $\overline{GR} \cong \overline{HL}$ _____



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