

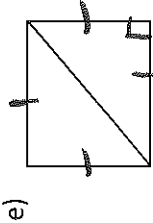
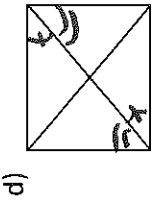
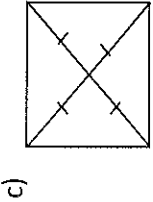
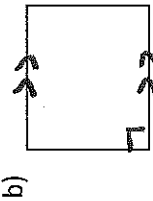
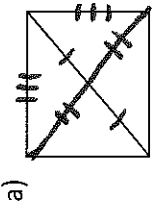
Practice Problems – Parallelograms

GT GEOMETRY – Bernhard

Name _____

SHOW ALL WORK AND PROPER MARKINGS WHERE APPROPRIATE.
Good luck! 😊

1. Give the most specific name for each quadrilateral and state the reasons.



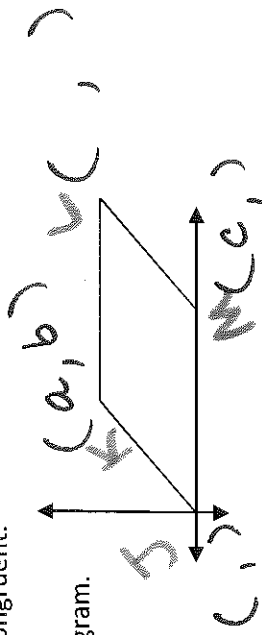
Name: _____ Name: _____ Name: _____ Name: _____ Name: _____

Reasons: _____ Reasons: _____ Reasons: _____ Reasons: _____ Reasons: _____

2. Answer each of the following with AT (always true), ST (sometimes true) or NT (never true).

- _____ a) A rectangle has perpendicular diagonals.
- _____ b) The diagonals of a rhombus are perpendicular bisectors of each other.
- _____ c) A parallelogram has exactly one right angle.
- _____ d) The diagonals of a square are congruent.

3. Fill in the missing coordinates for the parallelogram.



Complete each COORDINATE PROOF:

- a) Prove that the diagonals of a parallelogram bisect each other
- b) Prove that opposite sides of a parallelogram are parallel.

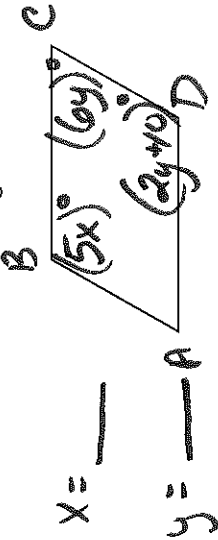
4. Circle the corresponding MULTIPLE CHOICE answer.

In quadrilateral ABCD, $\overline{AB} \cong \overline{DC}$, $\overline{AB} \parallel \overline{DC}$, and P is the midpoint of \overline{AC} and \overline{DB} . ABCD must be a

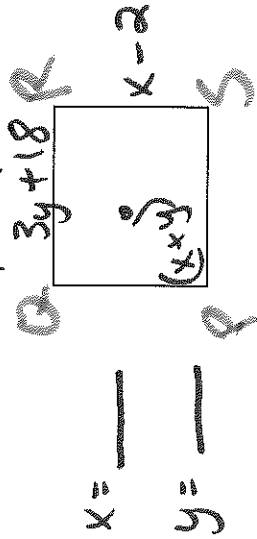
- I. Parallelogram
 - II. Rectangle
 - III. Rhombus
 - IV. Square
- A. I only
 B. I and II only
 C. I and III only
 D. I, II, III and IV

5. Solve for the variables in each.

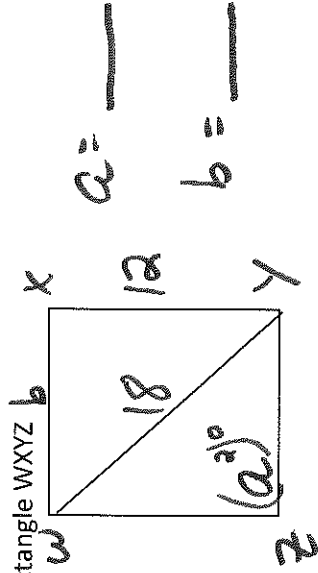
Given: Parallelogram ABCD



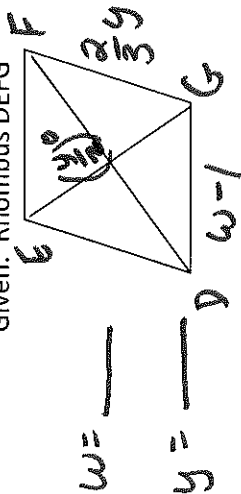
Given: Square PQRS



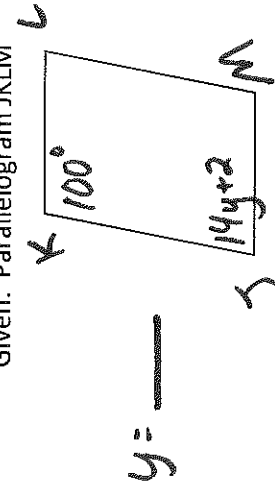
Given: Rectangle WXYZ



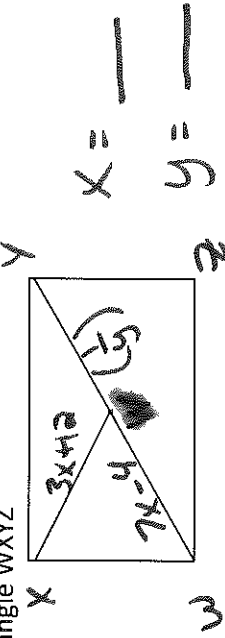
Given: Rhombus DEFG



Given: Parallelogram JKLM

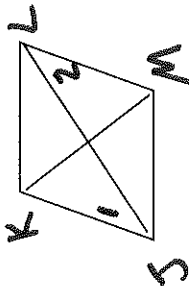


Given: Rectangle WXYZ



6. Given: $\angle 1 \cong \angle 2$, $\overline{JK} \cong \overline{ML}$

Prove: P is the midpoint of \overline{JL}



Statements

Reasons