

LEVEL: EMERGING

1) What is another name for an equilateral rectangle?

RHOMBUSES Directions: For any rhombus $JKLM$, decide whether the statement is *always*, or *sometimes* true? Draw a diagram and *explain your reasoning*.

2) $\angle L \cong \angle M$

3) $\angle K \cong \angle M$

4) $\overline{JK} \cong \overline{KL}$

RECTANGLES Directions: For any rectangle $WXYZ$, decide whether the statement is *always*, or *sometimes* true? Draw a diagram and *explain your reasoning*.

5) $\angle W \cong \angle X$

6) $\overline{WX} \cong \overline{XY}$

7) $\overline{WY} \perp \overline{XZ}$

USING PROPERTIES Directions: Name each quadrilateral – *parallelogram, rectangle, rhombus, and square* – for which the statement is true.

8) It is equiangular

9) It is equiangular & equilateral

10) Its diagonals are perpendicular

11) Opposite sides are congruent

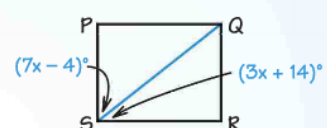
12) The diagonals bisect each other

13) Diagonals bisect opposite angles

LEVEL: PROFICIENT

ERROR ANALYSIS Directions: Quadrilateral PQRS is a rectangle. *Describe* and correct the error made in finding the value of x .

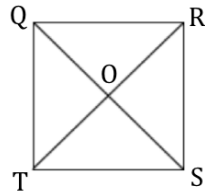
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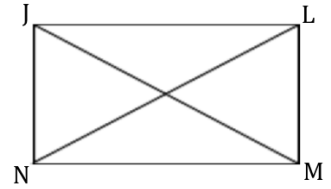
$7x - 4 = 3x + 14$
 $4x = 18$
 $x = 4.5$

✗

15) In square QRST, $RS = 12$. Find RO .

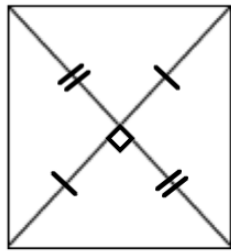


16) In rectangle JLMN, $NL = 14$ and $m\angle LNM = 30^\circ$. Find JL .

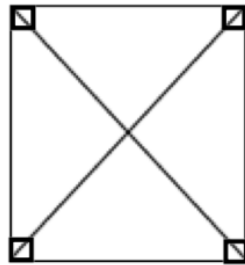


Directions: Use the given information in the diagrams to classify the following quadrilaterals as a parallelogram, rectangle, rhombus, or square. **DO NOT ASSUME THE DIAGRAM IS A SQUARE**

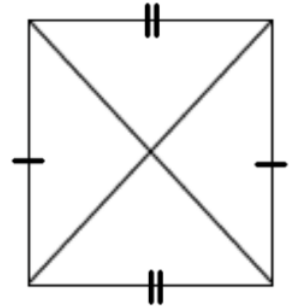
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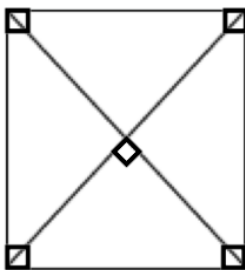
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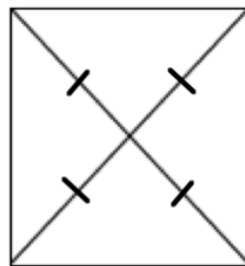
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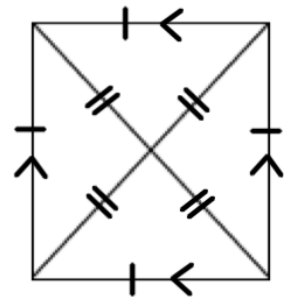
20)



21)



22)



COORDINATE GEOMETRY

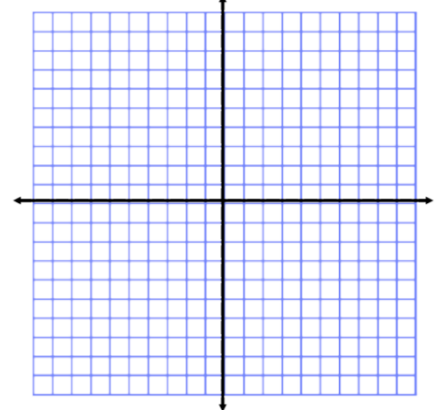
23a) Use the given vertices to graph quadrilateral JKLM.

$J(-8, 10), K(0, 9), L(4, 2), M(-4, 3)$

23b) Classify quadrilateral JKLM and EXPLAIN your reasoning.

23c) Then find the perimeter of quadrilateral JKLM

LEVEL: MASTERY



24) You want to mark off a square region in your yard for a patio. You use a tape measure to mark off a quadrilateral on the ground. Each side of the quadrilateral is 2.5 meters long. *Explain* how you can use the tape to measure to make sure that the quadrilateral you drew is a square.