Name $\qquad$ Date $\qquad$ Pd $\qquad$

### 7.4 Square CYU

$\square$ Use when you get it right all by yourself
$\boldsymbol{S}$ Use when you did it all by yourself, but made a silly mistake $\boldsymbol{H}$ Use when you could do it alone with a little help from teacher or peer
$\boldsymbol{G}$ Use when you completed the problem in a group
X Use when a question was attempted but wrong (get help)
$N$ Use when a question was not even attempted

| CONCEPTS | BASIC | INTERMEDIATE | ADVANCED |
| :--- | :---: | :---: | :---: |
| Vocabulary | 1 |  |  |
| Classifying quadrilaterals | 2 | $3-8$ | $15-22$ |
| Applying properties of squares | $9-14$ | 23,24 |  |
| Distance formula |  |  | $15-16$ |
| Perpendicular slopes |  | $15-16$ |  |

1. VOCABULARY What is another name for an equilateral rectangle?
2. Classify the quadrilateral. Explain your reasoning.


Name each quadrilateral - parallelogram, rectangle, rhombus, or square - for which the statement is always true.
3. It is equiangular.
5. The diagonals are perpendicular.
7. The diagonals bisect each other.
4. It is equiangular and equilateral.
6. Opposite sides are congruent.
8. The diagonals bisect opposite angles.

The diagonals of square LMNP intersect at K. Given that $L K=1$, find the indicated measure.
9. $\mathrm{m} \angle \mathrm{MKN}$
10. $\mathrm{m} \angle \mathrm{LMK}$
11. $\mathrm{m} \angle \mathrm{LPK}$
12. KN

13. LN
14. MP

Decide whether parallelogram JKLM is a rectangle, a rhombus, or a square. Give all names that apply. Explain your reasoning.
15. J(-4, 2), K(0, 3), L(1, - 1), M(-3, -2)
16.J(5, 2), K(2,5), L(-1, 2), M(2,-1)

Complete each statement with ALWAYS, SOMETIMES, or NEVER. Explain your reasoning. 17. A square is $\qquad$ a rhombus.
18. A rectangle is $\qquad$ a square.
19. A rectangle $\qquad$ has congruent diagonals.
20. The diagonals of a square $\qquad$ bisect its angles.
21. A rhombus $\qquad$ has four congruent angles.
22. A rectangle $\qquad$ has perpendicular diagonals.
23. ABSTRACT REASONING Will a diagonal of a square ever divide the square into two equilateral triangles? Explain your reasoning.
24. REASONING Are all rhombuses similar? Are all squares similar? Explain your reasoning.

CYU Reflection: How far can you go: basic, intermediate, or advanced?
Rate your mastery leve!!
How confident are you with the skills this CYU covered? Circle the score you would give yourself.


