Name _____

Problem Solving • Properties of Two-Dimensional Figures

COMMON CORE STANDARD CC.5.G.3

Classify two-dimensional figures into categories based on their properties.

Solve each problem.

1. Marcel thinks that quadrilateral *ABCD* at the right has two pairs of congruent sides, but he does not have a ruler to measure the sides. How can he show that the quadrilateral has two pairs of congruent sides?

He can fold the quadrilateral in half both ways. If both sets of sides match, then they are congruent.

2. If what Marcel thinks about his quadrilateral is true, what type of quadrilateral does he have?

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3. Richelle drew hexagon *KLMNOP* at the right. She thinks the hexagon has six congruent angles. How can she show that the angles are congruent without using a protractor to measure them?

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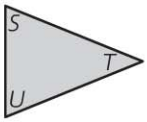
4. Jerome drew a triangle with vertices *S*, *T*, and *U*. He thinks $\angle TSU$ and $\angle TUS$ are congruent. How can Jerome show that the angles are congruent without measuring the angles?



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5. If Jerome is correct, what type of triangle did he draw?

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TEST PREP

Lesson Check (CC.5.G.3)

1. Peter knows that pentagon *DEFGH* has 5 congruent sides. How can he determine if the pentagon has 5 congruent angles without measuring?

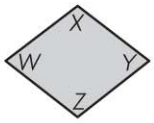
(A) He can trace and fold the figure to check if the angles match up.

(B) All pentagons have congruent angles.

(C) If a polygon has an odd number of angles, the angles cannot be congruent.

(D) He can use an index card to check that at least one angle is right.

2. Tina knows that quadrilateral *WXYZ* has 2 pairs of congruent angles. She thinks that all 4 sides look congruent but she does not have a ruler. How can Tina determine whether she is correct?



(A) She can fold the figure to check that *WX* and *YZ* match up.

(B) She can fold the figure to check that *XY* and *WZ* match up.

(C) She can fold the figure along both diagonals, *XZ* and *WY,* to check if the sides match.

(D) The sides cannot all be congruent if the angles are not all congruent.

Spiral Review (CC.5.MD.1, CC.5.G.3, CC.5.G.4)

3. How many ounces are in 50 pounds? **(Lesson 10.3)**

(A) 800 ounces

(B) 500 ounces

(C) 400 ounces

(D) 200 ounces

4. How many minutes are there in 40 hours? **(Lesson 10.7)**

(A) 4,000 minutes

(B) 2,400 minutes

(C) 960 minutes

(D) 240 minutes

5. Which of the following angle measures could NOT represent an angle measure of an acute triangle? **(Lesson 11.2)**

(A) 33°

(B) 78°

(C) 81°

(D) 92°

6. Which of the following angle measures represents the measure of each of the four angles of a square? **(Lesson 11.3)**

(A) 45°

(B) 60°

(C) 90°

(D) 100°