Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Unit 5 Review Part 2**

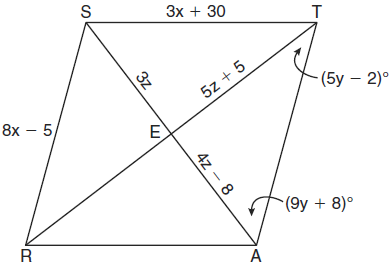
Monica

Geometry Period:\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Outcome** | **Question #s** |
| **#01: Argues**with different types of reasoning in order to prove or disprove a statement | 2 |
| #04: Be **precise** in calculating and applying the length and midpoint of a segment | 4 |
| #06: Graphically and algebraically **discerns** if lines are parallel or perpendicular on a coordinate plane and can identify the point of intersection of intersecting lines | 4 |
| #07: Identifies polygons **precisely**and can determine angle sums and missing angle measures | 3, 7 |
| **#08: Concludes**if two triangles are congruent and identifies corresponding parts | 2 |
| **#10: Discerns**and applies theorems and relationships about quadrilaterals and **communicates** those relationships | 1, 2, 4, 5, 6 |

1) In the diagram below, quadrilateral *STAR* is a rhombus with diagonals  and  intersecting at *E*. , , , , , , and . Find *SR*, *RT*, and .



2) Given: ABCD is a rhombus

Prove: 

E

D

C

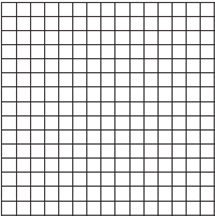
B

A

3) The diagram below shows only part of a regular polygon. It is unknown how many sides the polygon has. If x + y = 312, how many sides must the polygon have?



4) Quadrilateral ABCD has vertices A(1, 1), B(5, 2), C(6, -2), and D(2, -3). Use coordinate geometry to classify the quadrilateral using the most precise name possible. [Use of the grid is optional.]



5) Identify the statements below as true or false:

1. \_\_\_\_\_\_\_\_\_\_\_ The diagonals in a parallelogram are congruent.

b) \_\_\_\_\_\_\_\_\_\_\_ The diagonals in a square bisect the angles.

c) \_\_\_\_\_\_\_\_\_\_\_ A trapezoid has one pair of congruent sides.

d) \_\_\_\_\_\_\_\_\_\_\_ The opposite angles in a rhombus are congruent.

e) ­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_ The opposite sides in a rectangle are congruent.

f) \_\_\_\_\_\_\_\_\_\_\_ The diagonals in an isosceles trapezoid are congruent.

g) \_\_\_\_\_\_\_\_\_\_\_ All parallelograms are rectangles.

6) The measures of two consecutive angles are in the ratio of 3:7. What is the measure of the smaller angle?

7) What is the value of x in the hexagon below? (Note: Figure not drawn to scale.)

2x°

2x°

x+20°

102°

3x°

3x+15°